

PLUS Face-lifted 1 Series revealed | E12 M535i | M Performance X5

BMWcar

the ultimate BMW magazine



228i Convertible
Putting the new 2 Series
soft-top through its paces

www.bmwcar magazine.com

E30 M3 Track Stars

Two alternative ways of creating the ultimate 3 Series



Plus

- 10 Minute Guide: Z3 1.9
- E90 suspension replacement
- Berg Cup hillclimb Super Tourer
- Tech Focus: BMW light technology
- What's In Your Garage? 2002 Turbo
- Buying Guide: F30 320i and 328i Saloons

MARCH 2015 £4.50



V8-engined past masters



Driving the ballistic X6M



THE ULTIMATE IN
PERFORMANCE UPGRADES.
AT DMS AUTOMOTIVE
WE'VE BEEN UNLEASHING
AUTOMOTIVE PERFORMANCE
FOR OVER 18 YEARS.



DMS 1M (EVO MARCH '12)

"THERE'S A REAL RIP TO THE WAY THE REVS PILE ON ABOVE 4000RPM"

DMS SL65 BLACK SERIES (EVO OCTOBER '10)

"IT FEELS LIKE THE LOVE CHILD OF AN SL65 AND A PORSCHE GT2"

DMS 135I (BMW CAR MAY '09)

"THE STANDARD CAR IS GREAT BUT DMS HAVE SOMEHOW
MANAGED TO TAKE IT TO THE NEXT LEVEL"

DMS 997 TURBO 3.6 (EVO SEPTEMBER '08)

"IT'S EPIC, HILARIOUS AND ADDICTIVE IN EVERY GEAR,
YET DOCILE WHEN CRUISING"

DMS 997 TURBO 3.8 PDK (EVO JUNE '11)

"DELIVERY IS ALMOST UNCOMFORTABLY FORCEFUL"



BELOW IS A SMALL SELECTION OF OUR MORE POPULAR MODELS TO UPGRADE.
WE ARE ABLE TO UNLEASH PERFORMANCE FROM SMALL FOUR CYLINDER DIESEL ENGINES UP TO V12 SUPERCARS:

PORSCHE

997 TURBO/S 3.8 INC PDK » 611 BHP
997 TURBO 3.6 » 625+ BHP
997 GT2 RS » 670+ BHP
996 TURBO/GT2 » 600+ BHP
997 CARRERA S PDK » 400+ BHP
997 CARRERA S » 376+ BHP
997 CARRERA PDK » 368 BHP
997 CARRERA GTS » 435 BHP
997 GT3 UP » 436 BHP
BOXSTER 3.4S » 336+ BHP
CAYMAN S » 342 BHP
CAYENNE GTS » 440 BHP
CAYENNE TURBO 4.5 » 565+ BHP
CAYENNE TURBO 4.8 » 578+ BHP
CAYENNE TURBO S 4.8 » 600+ BHP
CAYENNE 4.2 DIESEL » 450+ BHP
CAYENNE DIESEL » 300+ BHP
PANAMERA TURBO » 600+ BHP
PANAMERA DIESEL » 305+ BHP

MERCEDES-BENZ

'63' 5.5 Bi-TURBO ALL MODELS » 600+ BHP
'500' 4.7 Bi-TURBO ALL MODELS » 498+ BHP
SL65 BLACK » 720+ BHP (+DELIMIT)
SL65 AMG » 690 BHP (+DE-LIMIT)
'55' AMG KOMPRESSOR » 580+ BHP
C63 AMG » 530+ BHP (+DE-LIMIT)
SL63 AMG » 560+ BHP (+DE-LIMIT,
RE-MAP & LOWER ABC SUSPENSION)
CL600 Bi-TURBO » 580+ BHP
SLK55 AMG » 389 BHP (+DELIMIT)
SLK 350 » 328 BHP
220 CDI ALL MODELS » 210+ BHP
250 CDI ALL MODELS » 259+ BHP
320 CDI V6 » 274 BHP
350 CDI V6 » 312 BHP
420 /450 CDI V8 » 358 BHP

BMW

M5/M6 F10 » 620+ BHP
M5 V10 » 548+ BHP (205 MPH)
X5M / X6M » 618 BHP
1M » 411+ BHP
M3 E90/92 » 445 BHP (+DE-LIMIT)
M3 E46 » 370 BHP (+DE-LIMIT)
F10 520D » 221 BHP
F10 530D » 296 BHP
F10 535D » 358 BHP
335i/135i/X6 » 370+ BHP (+DE-LIMIT)
123D » 252 BHP
330D E90 » 296+ BHP
320D E90 » 215 BHP
730D » 290+ BHP
X5 4.0D / 740D » 370 BHP
X5 3.0D » 296 BHP
X6 X50i 4.4 » 500+ BHP
535D / 335D / X5 SD » 355+ BHP
M135i Please call for more info

EXOTIC / MISC

FERRARI CALIFORNIA » 487 BHP
FERRARI 599 » 647 BHP
FERRARI 430 » 525 BHP
GALLARDO » 546 BHP
LP560 » 600+ BHP
LP640 » 707 BHP
MURCIELAGO LP640 » 707 BHP
MASERATI GT/QPORT » 438 BHP
MASERATI GT S / MC » 479+ BHP
ALL 2014 MASERATI'S Please call for more info
AUDI RS6 4.0 T V8 Please call for more info
AUDI RS6 V10 » 680+ BHP +DE-LIMIT
AUDI R8 V1 » 592+ BHP
AUDI RS4/R8 B7 » 439 BHP + DE-LIMIT
AUDI RS3 » 420+ BHP
AUDI Q7/A8 4.2 TDi » 400+ BHP
AUDI 3.0TDi (ALL MODELS) » 300+ BHP
AUDI S3 / GOLF R » 317+ BHP
ALL 2014 RANGE ROVERS AVAILABLE
RANGE ROVER 4.4 TDV8 » 395 BHP
R ROVER SPORT 3.0D » 305 BHP
EVOQUE 2.2 DIESEL » 240 BHP
BENTLEY 4.0 T V8 » 600+ BHP
BENTLEY CGT / F-SPUR (INC 2013) » 660 BHP
GT SPEED / SUPERSPORT » 680+ BHP

**FOR ALL OTHER MAKES AND MODELS,
PLEASE CALL US.**

WORLDWIDE OFFICES AND
INSTALLATION: UK » IRELAND » EUROPE
USA » ASIA » AUSTRALIA » S.AFRICA

E: SALES@DMSAUTOMOTIVE.COM

f /DMSAUTOMOTIVE FOLLOW US FOR OUR LATEST NEWS!

WWW.DMSAUTOMOTIVE.COM

UK: 0845 850 1845 INT: +44 845 850 1845

MORE
BHP
EQUALS
LESS
RPM
EQUALS
MORE
MPG

DESIGNED IN THE UK
DEVELOPED AT OUR
NURBURGRING
TESTING FACILITIES



Perhaps it's an indicator of the sort of year we should be expecting but we were barely into the month of January before BMW unveiled its first new, or I suppose strictly speaking face-lifted, model of the year in the form of the new 1 Series. Both the three- and five-door hatches have been given a thorough spruce up and while the changes wrought on the face-lifted 6 Series (see last month's *News* pages) might have been pretty minor, the 1 Series has been given an altogether more comprehensive going over.

Obviously the main changes are in the looks department and I don't think I'm the only one who viewed the visage of the pre-LCI 1 Series with the thought that 'there's a face that only a mother could love'. The problem was those headlights as far as I was concerned – they just looked the wrong size and the wrong shape. Their effect could be softened in the right colours and with the right trim package, but to me the car always looked rather startled. To my eyes, the face-lifted version now looks a lot more cohesive with its 2 Series-style lamps looking far better integrated into the design of the car. If proof were ever needed that one man's meat is another's poison, I was somewhat surprised to read one contributor to a forum I frequent jumping up and down with anger about how they'd ruined the 1 Series with the new corporate headlamps, arguing that all the models look the same now and that at least with the old shape lights the 1 Series had a slightly different look to the other models.

Does he have a point? Are the new slimline headlights making all the cars look too similar? I don't think it's quite got to Audi levels of struggling to differentiate between models... yet, but next time you're driving at night try playing the One, Two, Three, Four, Five, Six, Seven game. As a BMW comes up behind you try and identify the model from the headlights and if you come up on a BMW from behind try and work out which model it is from the tail-lights. Some are easier than others, but you need a very keen eye to differentiate a 3 Series from a Five.

Perhaps the latest range is becoming a little bit too homogenised and while they do increasingly look rather alike under the skin it's a similar story with engines across the range now becoming smaller and smaller. The LCI 1 Series is a case in point with plenty of three- and four-cylinder units being adopted – the 120i for example is now powered by a 1.6-litre engine. No doubt they'll be great to drive and there's no getting away from some of the impressive economy figures being claimed – the new 116d EfficientDynamics 'Plus' model, for example, offers up to 83mpg on the combined cycle. I can't wait to see what can actually be achieved in real world conditions. In the mean time we await the face-lifted 3 Series, as by our reckoning that has to be one of the next models due for an upgrade. Expect new engines and perhaps an increasingly homogenised look, too.

Bob Harper, Editor



SUBSCRIBE AND SAVE 30% (SEE PAGE 104)



BMWcar

Editor Bob Harper
Features Editor Simon Holmes
Studio Manager Gregg Foster
Sub Editors Christian Shelton, Rachael Willson
Senior Designers Aaron Batson
Designers Kelly Rodgers, Dave Powney, Tom Jackson
Retoucher Laurence Green
Contributors Elliott Stiling, David Ingram-Hill, Oliver Hirtenfelder, Matt Richardson, Johann Venter, Shane O'Donoghue, Dave Smith, Elizabeth de Latour, Chris Pollitt, Brodie Butler, Andrew Everett, Jamie Arkle, Axel Weichert, Mark Williams, Mike Taylor

Advertisement Sales Manager
 Claire Hodder, Tel: 01732 748052
 Email: chodder@unity-media.com
Production Manager Jo Claydon-Smith
Production Assistant Karen White
Subscriptions Robin Philpot
Accounts Helen Lawson, Claire Brown

To subscribe, call
01732 748084

BMW Car, Unity Media plc, Becket House, Vestry Road, Sevenoaks, Kent TN14 5EJ
 Tel: 01732 748000 Fax: 01732 748001
 Website: www.bmwcar magazine.com
 Email: Editorial: bmwcar@unity-media.com
 Production: jdclaydon-smith@unity-media.com
 Subscriptions: bmwcarsubscriptions@unity-media.com

BMW Car is published on the third Thursday of every month by Unity Media plc. © 2015 Unity Media plc
 Established July 1994

Distribution: Distributed by Seymour Distribution Ltd
 If you live in the UK and have trouble finding a copy of *BMW Car* please call 020 7429 4000 or email: csu@seymour.co.uk. For overseas queries please contact Seymour International Ltd by calling +44 (0) 20 7429 4000 or email: intl.query@seymour.co.uk
Printed by: William Gibbons & Sons Ltd
Print origination: Unity Media

While every effort is made in compiling *BMW Car*, the publishers cannot be held responsible for errors or omissions. Readers are advised to pay by Credit Card when ordering goods off the page, as they are regulated under the Consumer Credit Act 1974, unlike debit or charge cards which are not. *BMW Car* (ISSN 1353-7954) is published Monthly (12 times per year) by Unity Media Communication Ltd c/o USACAN Media Dist. Srv. Corp. at 26 Power Dam Way Suite S1-S3, Plattsburgh, NY 12901. **Annual Subscription:** UK £43.20; Europe £62; ROW £78 (with 20% off UK cover price worldwide). For US and Canada, subscribe online at: www.imsnews.com/bmwcar. Periodicals postage paid at Champlain, NY and at additional mailing offices. POSTMASTER: Send address changes to *BMW Car*, c/o International Media Service, 3330 Pacific Ave Ste 500, Virginia Beach, VA 23451, USA. Tel: (toll free) 800 428 3003. Email: cs@imsnews.com. Permit Number: 013-159. Asia distribution: Car Kit PTE Ltd, 1 Charlton Lane, Charlton Corner, Singapore 539631. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording or any storage or retrieval system without the consent of the publisher. Registered at Stationers Hall Copyright. Direct input by Unity Media plc.

Independence: This magazine is published monthly by Unity Consumer Press for all owners, drivers and enthusiasts of the BMW marque. It is available entirely independently of BMW (UK) Ltd or its dealers, or of any club or association. And we speak as we find...

BMW Car is available for international licensing and syndication. Email hlawson@unity-media.com

Digital editions available from:



ISSN 1353-7954 © 2015 UNITY MEDIA PLC



**Worlds largest supplier of BMW
styling, tuning and
equipment**

SCHMIEDMANN®
BMW specialist



From £ 70.93

Schmiedmann S-TECH. sport-brake-discs ventilated, slotted and S-coated, High quality material G3000, QS-9000/ISO9001 certified production and anti corrosion Geomet S-coating. The brake discs can be mounted with our standard brake pads, but it will be an advantage to use for instance EBC racing brake pads!

E30 Z1 front set 260X22MM..... £ 79.46
E21 E30 rear set 258X10MM..... £ 70.93
E36 E46 Z3 Z4 front set 286X22MM..... £ 90.83
E36 E46 rear set 276X19MM..... £ 79.46
E8x E9x E89 front set 300X24MM..... £ 99.36
E8x E9x rear set 300X20MM..... £ 99.36



From £ 266.90

Schmiedmann sport rear silencers first-class quality handmade in Italy! 100% stainless steel with a nice deep sound. The rear silencers is also lighter than the original.



£ 909.58

Get more sound for the **BMW F10 M5** with a Schmiedmann Race -Black Edition- sport rear silencer replacement set with 4XØ100MM black rolled/angled, interchangeable tailpipes



£ 29.09

Schmiedmann gear lever cover -Sport Edition-, hand-sewn genuine black leather or suede with red stitching and a stainless steel emblem. Fits most BMW models.

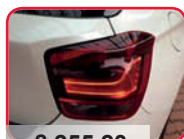


From £ 2.49

Schmiedmann rim emblem / center cap
Ø64,5mm..... £ 5.11 Ø64,5mm..... £ 2.78
Ø70mm..... £ 3.36 Ø58mm..... £ 2.49



At Schmiedmann we have everything for BMW from the smallest clips, connectors, wishbone, brake discs / pads and body parts. In addition we can offer you best price guaranteed on all our products.



£ 255.23

F20 F21 Taillights black-line -M-Performance-original BMW



£ 881.14

Recaro sports seats for nearly all BMW models eg. Recaro Cross Sportster CS Aristo/Nardo black



£ 495.68

E63 E64 Prior-Design frontspoiler -PD-



From £ 70.93

Large selection of black kidney grilles for almost all models, eg. for **F10 F11 F30** and **F31**



From £ 1,247.29

Eisenmann 100% stainless steel handmade sports rear silencers beautiful deep sound that saves the characteristic BMW sound without being too noisy. We have them for most BMW's eg. **E90 E91**



From £ 901.65

F20 F22 F30 F31 F34GT F32 F33 Wagner Tuning Germany Performance-Package for N20 engines, consists of a highflow down-pipe WITHOUT catalyst + an upgrade intercooler



£ 110.64

BMW fastener assortment kit, the most used 19 different fastener types - if you run out of one type you can reorder each single type to fill up the box again



From £ 61.83

E61 E61 LCI Harness repair set for the trunk lid, fast and easy repair. Left or right side



From £ 266.90

Westfalia towing hitch for almost all BMW models.



From £ 58.11

Powerflex suspension bushes, subframe bushes/ inserts and rear differential mounts for **BMW E39** Road Series and Black Series



From £ 236

Everything in sport air intake systems from **Simota Racing** Improves engine's efficiency, boosts horsepower and torque for almost all BMW models



From £ 26.15

Original BMW accessories e.g. BMW miniature models scale 1:18 or 1:43. Get your favorite BMW as a model.



£ 189.00

Meyle Heavy Duty reinforced spare parts made in Germany e.g. **E36 / Z3** wishbone-set with rubber mounting / holder complete L.+R.-side



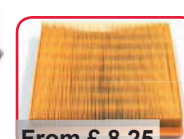
From £ 1.473.00

Everything in **BILSTEIN** suspension e.g. Complete **BILSTEIN B16** suspension kit adjustable in hardness and height for BMW 1'series, 3'series and 5'series



From £ 117

Lowering springs from German Lowtec e.g. sets with 4 springs
-E30 40/40 mm..... £ 117
-E36 30/20 mm..... £ 125
-E46 30/20 mm..... £ 132
-E90 30/20 mm..... £ 142
-E34 30/20 mm..... £ 132
-E39 35/20 mm..... £ 146



From £ 8,25

Air filters german quality very low prices eg.
-E30 316l..... £ 8.25
-E36 320l/325l/328l..... £ 8.39
-E46 All gasoline..... £ 8.39
-E90 320l..... £ 18.34
-E34 518l/520l..... £ 8.25
-E39..... £ 8.39
-E60 520l/525l/530l..... £ 11.23

Exclusive used BMW parts from Schmiedmann Nordborg



£ 2,828.66

F20 F21 E9xLCI F30 F31 F34GT X1 (E84) Engine 320D N47N Km. 34.000 #B00469



£ 2,828.66

F20 F21 E9xLCI F30 F31 F34GT X1 (E84) Engine 320D N47N Km. 26.000 #B00470



£ 2,828.66

F20 F21 E9xLCI F30 F31 F34GT X1 (E84) Engine 320D N47N Km. 37.000 #B00471



£ 2,828.66

E87LCI E81 E82 E88 E90LCI E91LCI E92 E93 Engine 120D N47 Km. 127.000 #C17438



£ 1,272.19

E39 X5 (E53) Engine 530D M57 Km. 145.000 #A16203



£ 2,686.53

E87LCI E81 E82 E88 E90LCI E91LCI E92 E93 Engine 120D N47 Km. 146.000 EU3 #A44643

Always 200-300 BMW cars for recycling. Low prices on USED BMW parts. Got a question?

e-mail us at nordborg@schmiedmann.com



New BMW's for recycling at Schmiedmann Nordborg
Get more info about the BMW's at www.schmiedmann.co.uk



BMW E61 530D touring 2004
Car no.: 1698



BMW E60 535D saloon 2004
Car no.: 1697



BMW E87 118D 5 door 2005
Car no.: 1686



BMW E46 323Ci cabriolet 2000
Car no.: 1690

Are you a workshop owner??

Then you can get the best prices on BMW spare parts, tuning and styling, by joining the Schmiedmann workshop discount program and save money contact us now on phone +45 63 18 19 65 or e-mail us at pierre@schmiedmann.com

BMW new parts
Schmiedmann Odense A/S
Herluf Trolles Vej 15
5220 Odense SØ, Denmark
Phone. +45 65941545
E-mail odense@schmiedmann.com

BMW used/new parts
Schmiedmann Nordborg A/S
Lyngmosevej 9
6430 Nordborg, Denmark
Phone. +45 74 49 11 80
E-mail nordborg@schmiedmann.com



Worlds largest online BMW catalog
WWW.SCHMIEDMANN.CO.UK

Reservations are made for goods sold and price changes

BMWcar

THE ULTIMATE BMW MAGAZINE

ISSUE 249 MARCH 2015



SUBSCRIBE AND SAVE 30% (SEE PAGE 104)



- 006 News** The 1 Series face-lift is announced and there's a new M4 concept car.
- 012 New Products** Plenty of the latest parts and pieces for you and your car.
- 016 The High Life** Taking a look at the M Performance range for the current X5.
- 020 Sweet Ride** The 2 Series Convertible is here at last and we've managed to get a drive of the 228i version.
- 026 Gold Standard** The E12 M535i is 35 years old so we take a look back at the icon using this stunning gold example.
- 034 M is for Monstrous** The big bruiser is back; the new X6M has arrived and it's every bit as good as we hoped.
- 042 Double Trouble** A pair of E30 M3s over in Australia that are modified in very different ways to do very similar things.
- 050 The Thirty Somethings** We gather together an E31, E38 and E39 that all happen to be packing V8 power.
- 058 King of the Hill** A highly developed E36 that's been built to win its class at the Berg Cup hillclimb in Germany.
- 064 What's Involved?** We answer the important questions when it comes to replacing and upgrading E90 suspension.
- 070 What's in your Garage?** The story of one man and his rather special affair with the truly iconic 2002 Turbo.
- 078 Tech Focus** From xenon to LED, we take a look at how and why lighting has improved so much in recent times.
- 082 Buying Guide** This month we look at the current F30 320i and 328i models.
- 090 Longtermers** Bob gets new wheels for his wagon and Simon has been making his 135i a whole lot more fun.
- 100 10 Minute Guide** The trusty 1.9-litre Z3 is a great bargain buy right now so we give you the rundown on the facts.
- 102 Postbag** All the latest views and voices from readers that have written in.
- 106 BMW Buyer** A new section joins the magazine as we take a look at what's hot in the new and used sales market.
- 114 BMW Concepts** A strange one this month in the shape of the GINA.

New face for the 1 Series

The remodelled 1 Series three- and five-door hatches will be on sale on 28 March and offer plenty of added goodness over the outgoing machines, most obviously the reshaped headlights and rear light clusters. Everyone will have their own feelings on the updated lights, but to our mind the headlights in particular are much sleeker with their new look which more closely apes that of the 2 Series Coupé. At the back the rear clusters have expanded and are now running on to the hatch where previously they were simply mounted on the wing. It does seem as if BMW may have poached VW's rear light designer though as the original lamps looked very similar to those on a Polo while the face-lifted ones wouldn't look out of place on a Golf!

While the most obvious changes are to the exterior, there have been a host of revisions to the One's engine line-up with virtually every model gaining a new or revised powerplant. The UK line-up will be as follows: four petrol models (118i, 120i, 125i and M135i) and six diesels – 116d, 116d ED Plus, 118d, 120d, 120d xDrive and 125d. With the current generation 1 Series the UK receives a 116i and a 118i but with the face-lifted machine the new 118i more or less replaces the 116i and the 120i replaces the 118i while the new three-cylinder 116i has been dropped altogether for the UK market.

As you'd expect, all the petrol engines are turbocharged but also feature High Precision Direct Petrol Injection, Valvetronic fully variable valve timing and variable adjustment of the intake and exhaust camshaft via the familiar double-Vanos setup. The 118i and 120i are both powered by a 1.6-litre four-cylinder engine which develop 136hp and 170hp respectively, offering acceleration of 7.2 seconds to 62mph in the 120i and economy and emissions of just 52.3mpg and 125g/km in the 118i. The four-cylinder engine in the 125i is a 2.0-litre unit with 218hp and 229lb ft of torque giving a 0-62mph time of 6.2 seconds. The M135i's hardware remains more or less as before but peak power is now up to M235i levels with 326hp.

For the diesels, there are engines that are new to the 1 Series, the B37 three-cylinder in the 116d, and the B47 in the 118d, 120d and 125d. They all feature new turbocharging technology and further developed common rail direct injection systems. BMW reckons engine response has been improved via variable geometry turbines and turbocharger shaft guidance which, depending on the engine variant, involves a slide bearing or roller bearing, while new solenoid valve injectors generating injection pressure of up to 2500bar increases the precision of the fuel metering process.

BMW also says that advances have been made with the new diesel engines in terms of acoustic comfort as well as thermodynamics, power development and efficiency.

The full rundown of the specification of the engines in the different models can be seen in the adjacent panels, but in terms of raw statistics the highlights for the diesel range are claimed economy and emissions figures for the 116d EfficientDynamics Plus model of 83.1mpg and 89g/km while the 125d with its multi-stage turbocharger offers 224hp and 332lb ft of torque yet a combined economy figure of 61.4mpg.



| F20/1 face-lifted 1 Series petrol models | | | | |
|--|-------------------------|-------------------------|-------------------------|-------------------------|
| | 118i | 120i | 125i | M135i |
| ENGINE: | Four-cylinder, 16-valve | Four-cylinder, 16-valve | Four-cylinder, 16-valve | Six-cylinder, 24-valve |
| CAPACITY: | 1598cc | 1598cc | 1995cc | 2979cc |
| POWER: | 136hp @ 4400-6450rpm | 177hp @ 4800-6450rpm | 218hp @ 5000rpm | 326hp @ 5800-6000rpm |
| TORQUE: | 162lb ft @ 1350-4300rpm | 184lb ft @ 1500-4500rpm | 229lb ft @ 1350-4800rpm | 332lb ft @ 1300-4500rpm |
| 0-62MPH: | 8.5 seconds (8.7) | 7.4 seconds (7.2) | 6.4 seconds (6.2) | 5.1 seconds (4.9) |
| TOP SPEED: | 130mph (130) | 140mph (138) | 155mph (151) | 155mph (155) |
| ECONOMY: | 52.3mpg (50.4) | 48.7mpg (49.6) | 42.2mpg (43.5) | 35.3mpg (37.7) |
| EMISSIONS: | 125g/km (129) | 136g/km (133) | 154g/km (148) | 188g/km (175) |
| PRICE FROM: | £20,775 | £23,825 | £26,905 | £31,725 |

Quoted figures are for five-door models. Figures in brackets refer to automatic models





As before, all models come as standard with a six-speed manual gearbox, bar the 120d xDrive and 125d which both use the eight-speed auto that's optional on the majority of the rest of the range.

While most of the changes to the 1 Series have been to the exterior and to the engine line-up, there have been some spec and trim changes, too. The 'Urban' trim line has been ditched and in the future the 1 Series will be offered as either a SE, Sport or M Sport. All models will be equipped with remote control central locking, keyless engine ignition, electric

windows, heated mirrors and the Driving Experience Control switch. Also included is automatic air conditioning, a multi-function leather steering wheel, a rain sensor including auto lights, DAB radio with CD player and an AUX-in socket and Bluetooth audio streaming. Completing the list are the iDrive operating system, 16-inch alloy wheels, extended storage, a sliding front armrest and foglights.

Building on this list is the Sport trim level which costs an additional £1000 and offers 17-inch alloy wheels, ambient lighting, black high-gloss interior trim,

Sport exterior styling elements, Sport steering wheel and Sports seats. For £2700 above SE spec comes the M Sport model with the expected upgrades including 18-inch M Sport alloy wheels, aluminium hexagon interior trim, M Aerodynamic body styling, M Sport suspension, Sport seats, Alcantara upholstery and an M Sport leather steering wheel.

The new 1 Series models will hit the UK's showrooms on 28 March and will be priced from £20,245 OTR for a three-door 118i SE and £20,775 OTR for a five-door 118i SE.

F20/1 face-lifted 1 Series diesel models

| | 116d | 116d ED Plus | 118d | 120d | 120d xDrive | 125d |
|--------------------|--------------------------|--------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| ENGINE: | Three-cylinder, 12-valve | Three-cylinder, 12-valve | Four-cylinder, 16-valve | Four-cylinder, 16-valve | Four-cylinder, 16-valve | Four-cylinder, 16-valve |
| CAPACITY: | 1496cc | 1496cc | 1995cc | 1995cc | 1995cc | 1995cc |
| POWER: | 116hp @ 4000rpm | 116hp @ 4000rpm | 150hp @ 4000rpm | 190hp @ 4000rpm | 190hp @ 4000rpm | 224hp @ 4400rpm |
| TORQUE: | 199lb ft @ 1750-2250rpm | 199lb ft @ 1750-2250rpm | 236lb ft @ 1500-3000rpm | 295lb ft @ 1750-2500rpm | 295lb ft @ 1750-2500rpm | 332lb ft @ 1500-3000rpm |
| 0-62MPH: | 10.3 seconds (10.3) | 10.4 seconds | 8.3 seconds (8.1) | 7.1 seconds (7.0) | (6.8 seconds) | (6.3 seconds) |
| TOP SPEED: | 124mph (124) | 121mph | 132mph (132) | 142mph (142) | (138mph) | (149mph) |
| ECONOMY: | 78.5mpg (78.5) | 83.1mpg | 70.6mpg (74.3) | 65.7mpg (68.9) | (62.8mpg) | (61.4mpg) |
| EMISSIONS: | 94g/km (96) | 89g/km | 104g/km (99) | 114g/km (109) | (119g/km) | (121g/km) |
| PRICE FROM: | £21,710 | £22,560 | £22,855 | £25,305 | £28,355 | £30,330 |

Quoted figures are for five-door models. Figures in brackets refer to automatic models



BMW at the Consumer Electronic Show

While the Detroit Motor Show in January is the traditional first date in the calendar for manufacturers, the Consumer Electronics Show (CES) that takes place in Las Vegas a week before Detroit is increasingly being used by the car companies to showcase future technology that will be coming in the next few years or so. And this year BMW made a big splash at the CES – here are the highlights...



M4 Concept: 'Iconic Lights'

The M4 Concept Iconic Lights model on show at CES was equipped with intelligent laser lighting and OLED-based Organic rear lights.

The laser lights offer an impressively long beam range well in excess of other lighting systems. The light is brighter, casts a concentrated beam over a distance of up to 600 metres and is extremely efficient. Upwards of a speed of 70km/h (43.5mph), the laser lights are automatically activated on top of the broader-dispersion LED main beam. In combination with BMW Selective Beam, BMW laser lighting provides optimal vision without dazzling oncoming traffic or preceding vehicles. Extensive integration between the headlights, camera, sensors and navigation systems is allowing new, proactive light functions to be developed. For example, if the vehicle sensors detect that the clear road width ahead is reduced, the laser beams can be activated to give drivers an indication of the width of their vehicle in relation to the road.

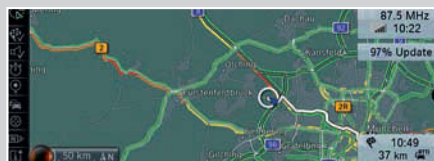
At the rear of the 'Iconic Lights' Concept BMW has used Organic LED light elements that are just 1.4 millimetres thick. Their semi-conducting layers of organic material produce light uniformly over their entire surface and for the first time they have been used not only for the tail-lights but the indicators, too. Since the OLEDs can be activated individually, this creates new possibilities for using different styles of lighting at different times, for example in different driving modes.

The front and rear lights of the BMW M4 Concept Iconic Lights model preview a number of lighting functions that can potentially be used in future production vehicles. Rear light clusters featuring BMW Organic Lights will be making their debut on a BMW M vehicle within the next 15 months.



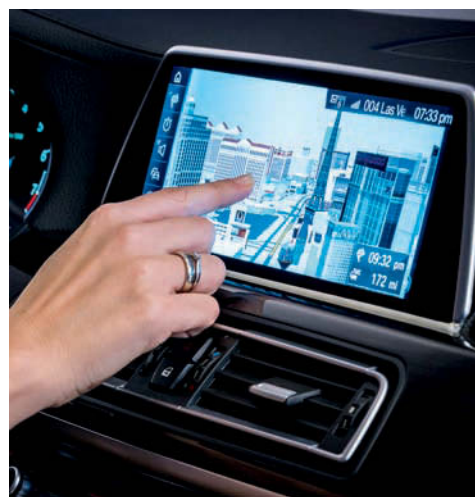
Over-the-air navigation map updates

BMW ConnectedDrive features now offer even greater convenience: the latest-generation Professional Navigation system now enables over-the-air updating of map data for the first time. The maps are brought up-to-date – at no charge to the user – via a mobile phone connection through the SIM card embedded in the car.



Touch-screen iDrive

It's quite possible that this new addition to the iDrive setup will make its debut in the new 7 Series when it's revealed later this year, but essentially it's BMW admitting that in this age of the touch-screen mobile and tablet that some folk would much rather use a screen than an iDrive controller. As a result, future BMW models will be offered with a touch-screen Control Display to be used in conjunction with the iDrive controller. In a further development, it will also be possible in future models to conveniently access various functions – such as inputting one's home address in the navigation system – by performing a directed gesture in the area between the gear lever and the instrument panel.



Rear seat Touch Command

This system uses a standard Samsung tablet computer as a control interface for infotainment and comfort functions, allowing the latest devices with new, intelligent functionality to be seamlessly integrated into the vehicle. The tablet connects wirelessly to the onboard electronics, allowing the interface to be used conveniently in the rear of the vehicle to control the rear seat entertainment system. All the main functions appear on the tablet display, without interfering with the monitor displays.



So close at Daytona

The 24 Hour race at Daytona is the traditional curtain-raiser for the motorsport season in North America and in this year's event – the 40th anniversary of BMW Motorsport's very first race in the US – the BMW Team RLL Z4 GTLM came second; an agonising 0.478 seconds behind the class winner in a Corvette. The second Z4 came in fourth place after an accident just past the nine-hour mark cost the car 29 laps.

In the GTD category Andy Priaulx's first outing in the Turner Motorsport Z4 didn't end in glory after the car suffered two lengthy stops early in the race with gearbox problems, eventually coming home 12th in class, 100 laps behind the class winning Viper.



Priaulx back in the BTCC

One could have been forgiven for thinking that last year's victorious BTCC machine, the West Surrey Racing 125i M Sport, might be in for a torrid time this year as not only will its performance be pegged back for 2015 but the team's main sponsor, eBay Motors, has withdrawn from the series. However, the team has been given a major boost by the arrival of triple world champion, Andy Priaulx, as its headline driver and with him comes a major sponsor in the form of the IHG Rewards Club.

Priaulx will certainly be busy in 2015 as he'll be a BMW works driver in the European Le Mans Series with BMW Sports Trophy Team Marc VDS, doing four endurance races in North America in the Tudor United SportsCar Championship with Turner Motorsport, which is also backed by IHG, and the BTCC too. His delighted comment was: "I have the most amazing 2015 racing season ahead of me. I can't wait to return to the BTCC with my long-term partner IHG. In the BTCC the BMW 125i M Sport has already proved to be the car to beat in this ultra competitive series and, after 13 years racing with the brand, I am really confident about what to expect in a championship that I consider unfinished business. Dick Bennetts' West Surrey Racing team has an incredible string of successes to its name, including the 2014 BTCC title, and I can't wait to work with all the guys there. I also want to say a big thank you to BMW Motorsport for providing me with such a varied programme this year. Not many drivers get such chances and it makes me proud to do all these series in such amazing cars."



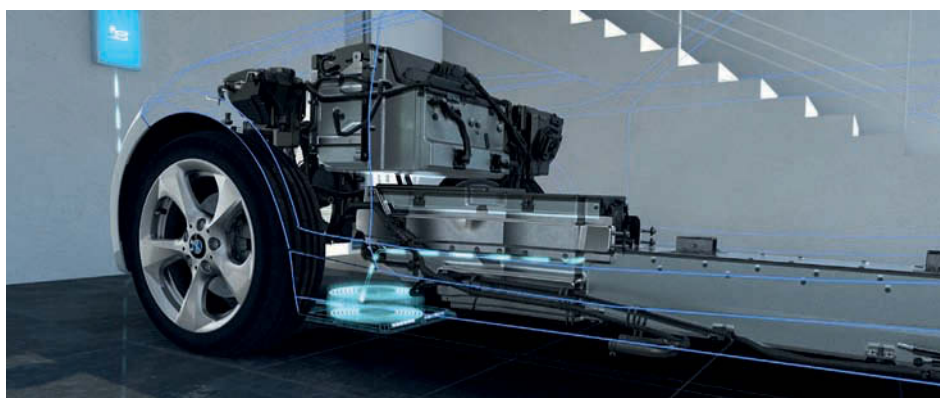
Collision avoidance

BMW has been working on collision avoidance setups for a number of years and we already have systems such as Active Cruise Control with Stop & Go function fitted in current BMW models. These radar- and camera-based systems provide warnings and can also brake the vehicle to a standstill, if necessary. In BMW's latest research vehicle – an i3 – an innovative laser sensor system scans the entire area around the vehicle. In a potential collision situation, the system warns the driver and if necessary automatically initiates centimetre-accurate braking.



Automated parking

On the test i3 four laser scanners monitor the entire area around the research vehicle, producing a precise image of its environment. A fully automated Remote Valet Parking Assistant integrates this information with the digital plan of a car park, and then uses this data to drive the i3 autonomously, quickly and safely to a vacant space and park it there. When the driver is ready to set off again, he can summon the vehicle, for example, by a voice command directed at a Smartwatch, and the i3 will return promptly to the car park exit, ready for departure.



Wireless charging

With the increasing availability of electric vehicles, the BMW Group is demonstrating a solution which would allow EV batteries to be charged more conveniently in the future using wireless, inductive charging. The system consists of two coils; one on the underside of the vehicle and one on the floor of the garage. Current is transmitted between the coils by means of an alternating magnetic field and without cable or contacts, at a charge rate of 3.3kW. The battery of an i8 takes about two hours to recharge in this way – similar to the charging time achieved with a wired connection. The system launches automatically, but only if the coils are correctly aligned and there is nothing in the way to obstruct the energy transfer.

Chinese milestone

Twelve years after the start of Chinese production at its site in Shenyang, BMW has reached an impressive milestone – the one-millionth vehicle produced in China has rolled off the assembly line.

The anniversary vehicle was a 3 Series long-wheelbase Saloon – a model that has been produced exclusively for the Chinese market since 2012. The two production plants at the

Shenyang site currently have a combined capacity of 300,000 cars per annum but this is being increased to a capacity of 400,000 over the next two years.



New 2 Series models

The 2 Series Coupé and Convertible will see a new engine making its debut in the spring; the 218i. They will utilise the three-cylinder 1.5-litre turbocharged unit which develops 136hp and 162lb ft of torque which in Coupé form equates to a 0-62mph time of 8.8 seconds and economy and emissions figures of 50mpg and 130g/km.

March will also see the arrival of the 214d Active Tourer model which also makes use of a three-cylinder engine, although this time in diesel guise. With 95hp and 162lb ft of torque its performance figures are a 0-62mph time of 12.9 seconds, economy of around 74mpg (depending on wheel and tyre setup) and emissions of between 99 and 104g/km.

Lastly for the 2 Series is the arrival of the new B47 2.0-litre diesel in the 220d which will also be available as a four-wheel drive xDrive model. As we went to press, BMW UK had yet to confirm or deny which of these new 2 Series models would be for the UK market.



Sporty new Five



Another new model to hit the streets this March will be the 5 Series Edition Sport. This new trim level will be available for all model variants and includes a leather-covered sports steering wheel, LED fog-lamps, the BMW Individual High Gloss Shadow Line and a redesigned 18-inch, double spoke light alloy wheels. There will also be some new colours for the Five – Mediterranean blue metallic and Mineral grey metallic for the Saloon and Touring and Kashmir silver metallic for the GT.

Most expensive 5 Series?

The last unregistered '30 Jahre' F10 M5 in North America has gone to a new home at an eye-watering price of \$700,000. Yes, you did read that correctly – seven hundred thousand US dollars! The car was auctioned for charity at a Barratt Jackson auction and was purchased by US car collector and NASCAR team owner Rick Hendrick. It'll share garage space with a delivery mile i8 and a bevy of Corvettes, some of which have been purchased for \$1,000,000.



Individual updated for the M3 and M4

BMW has expanded the Individual programme for the latest generation of M cars and the new M3 and M4 can now be spec'd in four new exterior colours; Frozen black metallic, Frozen silver metallic, Frozen red metallic and Frozen Brilliant white metallic. There will also be new interior options with enhanced BMW Individual Merino fine grain upholstery in Opal white, Amaro brown, Golden brown, Cohiba brown and Nutmeg. Additionally a BMW Individual all-leather black upholstery with contrasting seams in Sakhir orange, yellow, blue or Silverstone will also be offered.



FAST LANE SERVICE.

BACK ON THE ROAD IN 90 MINUTES.



BMW FAST LANE – ACCOMMODATING YOUR BUSY LIFE.

- Our BMW Technicians can carry out a range of service and maintenance tasks within 90 minutes
- We offer the very earliest appointment dates, without the need for a loan car
- With you on hand, our service staff can consult with you instantly about your vehicle

With all work completed, your BMW will be serviced and back where it belongs – on the road. And all within 90 minutes.

Visit www.bmw.co.uk/fastlane or call 0800 325 600 to find your local BMW Centre*.

*Participating Retailers only.

BMW Service

Performance 1 ceramic coatings

Oxfordshire based specialist Performance 1 coatings has launched a new ceramic coating service for tailpipes, silencers and finishers. The coating reduces exhaust surface temperatures which in turn decreases engine bay temperatures, protects vulnerable nearby components from heat soak, reduces cabin temperatures, increases exhaust corrosion resistance and improves exhaust gas temperatures for higher velocity. It can be applied to new or second-hand components and prices start at £40. There's also a range of colours to choose from and the coating will not tarnish or chip off like many high temperature paints.

Price: From £40

Contact: www.performance1coatings.com or call 01235 816032

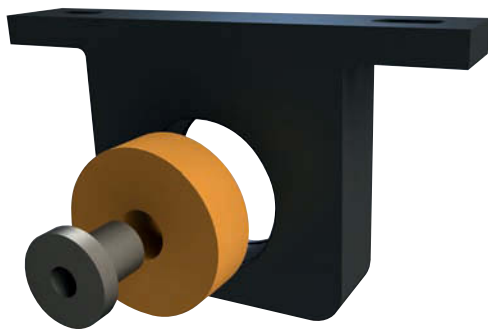


Hack Engineering E46 M3 exhaust hanger

The design of the standard E46 M3 exhaust hanger combined with the weight and layout of the system itself has left owners constantly having to replace their hangers. They don't come cheap, either at around £33 each and three are required with a short expected lifespan. UK-based firm Hack Engineering noted this problem, which also affects the E36 M3, E9x M3, E85/86 Z4 M and the E39 M5 as they all use the same part number. The solution is a beautiful piece of high-grade billet aluminium, machined to fit perfectly and with a high temperature bush insert for vibration reduction, all of which is made in the UK and is guaranteed for life.

Price: £45 each

Contact: www.hackengineering.co.uk



Quantum 44 S4 alloy wheel

BMW specialist M-Style has released a new Quantum 44 alloy wheel designed with BMW fitment in mind. The S4 will fit all BMW models including the larger X range of cars and the wheel itself features slim double spokes to reduce weight and improve looks. There is a

choice of sizes and fitments to suit all models and with a silver, gunmetal or bronze finish to choose from it offers something for everyone.

Price: From £720

Contact: www.mstyle.co.uk or call 0208 598 9115/01582 573 801

MOMO Anniversary steering wheels

To celebrate its 50th anniversary the popular Italian-based company is releasing two limited edition steering wheels. First up is the Prototipo, which MOMO states is one of its most successful designs. The new livery features a glossy black horn button with a unique 50-year celebratory logo and contrasting grey stitching and production is limited to 2000 pieces. Next up is the GT-50 Anniversary Edition that offers an anatomic grip, black leather and Alcantara with red leather piping. It also features a glossy silver cover with the '50 years' logo and production is limited to just 250 pieces.

Price: Prototipo – £199.99; GT-50 – £299.99

Contact: www.bdirect.com or call 01268 764411





E85 Z4 SmartTop

This clever device allows the convertible roof of your Z4 to operate whilst driving up to speeds of 28mph. It also converts the button to a one-touch system so it doesn't need to be held down and it allows the roof to operate using the original factory key fob. The kit comes with a simple plug-and-play wiring adapter for quick and easy installation and uses OEM connectors. Additionally, a USB port also allows further programming of the module to control the windows, too.

Price: £192

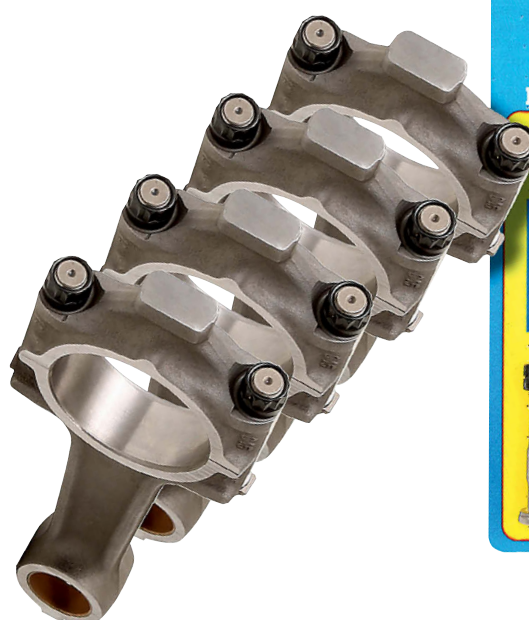
Contact: www.mods4cars.com

New Toyo R888R tyre

The high performance R888 tyre from Toyo has long been regarded as one of the best road legal track tyres available but the replacement is now here and Toyo claim it's been improved in every way. The all-new R888R offers even better dry grip, faster warm-up time and increased sustained performance over multiple laps and heat cycles. A rayon 'super-high' turn up ply combined with steel side plies give more precise steering response and feedback due to less sidewall flex making them the ideal road ready track day tyre. As before, there will be a large range of sizes in a choice of compounds and, most importantly, the tyre is still completely road legal.

Price: POA

Contact: www.toyo.co.uk



BMW M10 engine ARP con rod bolt kit

For those who happen to be rebuilding their four-cylinder M10 engine anytime soon, then these uprated con rod bolts from American specialist ARP might well be of interest. Suitable for all 1.5-2.0-litre M10 engines, the kit provides eight uprated bolts made from material that is rated to 220,000psi tensile strength offering considerably better fatigue life compared to the OEM rod bolts. It also comes with eight chrome moly steel 12-point nuts and a pack of ARP assembly lubricants.

Price: POA

Contact: www.arp-bolts.com

Go beyond.

The BMW X4 is the go-everywhere car that we take a step further. With a choice of alloy wheels up to 22" diameter, a quad sports exhaust with 90mm diameter tailpipes, front spoiler, rear diffuser, revised suspension and warranty friendly performance upgrades it's another BMW we take "beyond the standard".

AC SCHNITZER
beyond the standard.

www.ac-schnitzer.co.uk
01485 542000



Model shown ACS4 Sport based on X4 30d. Finance available subject to status. E&OE.

Evolve E46 M3 intake system

Leading BMW specialist Evolve Automotive has been developing an intake system for the S54 engine fitted to the E46 M3 for some time and now it's finished. The finely engineered package improves partial load 'normal' driving whilst giving proven gains in both power and torque on full throttle. There's also the improved soundtrack and no loss of smoothness at low rpm. The kit has been rigorously tested on a range of standard and modified cars and each component was carefully crafted to a high standard. The MAF tube is made from aluminium and features a plastic boss to reduce heat soak to the sensor. The filter housing is made from carbon and the kit includes an intake scoop fitted in the front right hand air duct to improve airflow. The kit also fits any CSL style or stock air box.

Price: £550

Contact: www.evolveautomotive.com or call



CTEK 3.8 battery charger

For all those owners who have put their classic BMWs into winter hibernation and are looking for a way to ensure the battery is topped up then this offering from CTEK will suit you. It's a 3.8 amp smart charger that plugs into the mains and simply connects to your battery with crocodile clips. Once attached, there's an easy-to-read display to let you know what state your battery is in and when there's enough juice to start your car. Plus, the charger can be left connected indefinitely, maintaining your battery without and risk of over or under charging.

Price: £64.99

Contact: www.ctek.com or call 01380 722621



Eibach black Pro-spacers

Spacers have become more popular than ever but the silver items currently on the market aren't ideally suited to black or dark coloured wheels. To address the problem these nifty new Pro-spacers from Eibach now come in a black anodised finish to blend in behind wheels. They are machined from aerospace grade aluminium and currently only come in BMW fitments, ranging from 4mm to 30mm.

Price: From £41 per pair

Contact: www.eibach.com



CodeClean leather care and cleaner

There's a new leather cleaner and a leather care cream product launched by CodeClean to make light work of cleaning and maintaining leather and vinyl interiors. Unlike aggressive cleaners that use sticky oils or waxes that lead to trapped dirt, these products contain mild solvents and

soaps to remove contaminants whilst leaving a natural finish and protective barrier. This leaves the leather feeling soft and non-sticky, prolonging the life of the seats.

Price: From £7.20

Contact: www.codeclean.co.uk or call 0800 0488863

Heritage Racing Apparel BMW T-shirts

In the words of Heritage Racing Apparel; 'Take a journalism professor, add his teenage son, divide by an obsession with cars and racing and you get some radical racing tees expressive of retro coolness'. Their captivating designs certainly reflect that and there's a number of classic BMW-inspired prints, including the 1989 M3 that won the DTM and the 328 that won the 1938 Mille Miglia. They're reasonably priced, too, so check out their webshop to view the full range.

Price: £16.98

Contact: www.etsy.com/shop/heriteracing



BMW Insurance

BMW Car Insurance



The Ultimate
Driving Machine

COVER YOUR BMW AS WELL AS IT COVERS THE ROAD.



SWITCH TO BMW CAR INSURANCE TODAY AND WE'LL PAY UP TO £100* TOWARDS ANY CANCELLATION FEES.

From day one your car will be protected by insurance created specifically for your BMW. With BMW Car Insurance, repairs will only be carried out at a BMW Approved Bodyshop by BMW Trained Technicians, using only Genuine BMW parts. This means your vehicle will be returned to its original Euro NCAP safety rating. This high quality repair will ensure your vehicle's residual value will be maximised.

KEEP YOUR BMW A BMW.

Call our UK call centre on 0800 072 2321 quoting **BMW CARMAGAZINE** or visit bmw-carinsurance.co.uk/bmwcar.
Lines are open 8am - 8pm Monday to Friday and 9am - 5pm on Saturdays.

*Full terms and conditions are available at bmw-carinsurance.co.uk/cancellationfees.

BMW Car Insurance is sold, underwritten and administered by Allianz Insurance plc registered in England number 84638.

Since their creation some years ago, the SUV (or BMW-named SAV) market has become somewhat synonymous with a certain kind of branding and image. Aside from the Chelsea tractor stereotype, these large and luxurious cars with their stylish looks possess huge road presence and back it up with strong performance from powerful engines. It helps create a bold image and it's reflected with a bold price as even the basic X5 now costs well over £40,000, which is certainly no pocket change.

But for those looking to make their recent X5 purchase stand out a little more, BMW has put together an M Performance range of accessories to complement the already pronounced looks of the current version. In M Sport guise the F15 X5 is undeniably a muscular-looking thing, particularly from the front with its great big nostrils, frenched foglights, large angled headlights and huge air intakes. Then there are the air vents in the wings and swollen arches that give that strong shoulder line, finished off with a prominent posterior featuring those large exhaust cut outs either side of the bumper. But whilst it's a relatively handsome beast, the M Performance parts are subtle yet meaningful enough to add a little but gain a lot.

This example is fitted out with the full aerodynamics package made up of several pieces. At the front there's an angled lip spoiler fitted to the lower front bumper section that works with the existing lines to create a more aggressive look whilst not looking too imposing. It doesn't protrude too far and although it's quite aggressively angled it's actually

been tested with the lower leg crash test, meeting all legal requirements for pedestrian protection, which is nice to know. It's also made from high quality carbon fibre with a gloss finish and the weave is flawless.

At the rear there's a very subtle roof edge spoiler above the window and lower down is a diffuser, again finished in good quality carbon fibre. It's a simple but nicely sculptured piece of design that fills the void between the exhaust exits well, broken up by the vertical bars in the centre. These are positioned so to allow a tow bar to still be utilised. The diffuser centre section is also joined by the catchily named 'Aerodynamic Package tail lift flaps' that poke out from either side of the rear bumper. These small, spoiler flick ups are separate from the diffuser itself but whilst I really like the subtle centre diffuser I'm not quite so convinced by the tail lift flaps. Finished in carbon fibre they do look purposeful but whether they are or not is unclear. However, BMW does stipulate that the front splitter is only fitted in conjunction with the roof edge spoiler. This suggests these items do actually make a small difference to the car's aerodynamics and therefore require each other's benefits to balance out as they do on other models.

To complete the aero package there are the matching carbon side skirt films, which run along the bottom of the sills to tie the front and rear sections together, though this is purely for appearance. Here they come fitted with the optional M Performance graphics, but again, I'm not quite convinced by these, as they don't seem to match the rest of the car's high class look and feel.

That concludes the larger parts of the kit, but there

The High Life

The X5 is no sports car but that hasn't stopped BMW from designing a set of M Performance accessories for the big 4x4

Words: Simon Holmes Photography: Dave Smith





are also plenty of smaller additions that contribute to the overall look and feel of the car. The gloss black kidney grilles make a huge difference as the M Sport comes with Shadowline trim as standard, meaning the original grilles are virtually the only chrome trim to be found on the car. Also fitted are the carbon fibre wing mirrors caps, which feature the same high quality weave found in the splitter and spoiler, thus tying in nicely with the theme.

Last of all, the body styling additions are finished off superbly by those M Performance wheels. The M Sport usually comes with more than adequately sized 19-inch wheels (with a 20-inch option) but here they have been replaced with wheels measuring a slightly absurd sounding 21-inches in diameter. They look huge and the thin, polished silver spokes against the darker grey spokes behind them seem to make the wheels appear even bigger than they are. They're not just tall but wide, too, measuring 10-inches at the front and a monstrous 11.5-inches at the rear, requiring suitably huge 285/35/21 and 325/30/21 tyres. The Pirelli-supplied rubber is still run-flat, but despite that and the tiny, rubber band look to the side profile they provide a decent ride that seems no different to standard. Inevitably, the bigger wheels do raise the car slightly, giving the already large X5 a truly dominating presence. You can certainly see it coming up behind you anyway. The increased rubber-to-road ratio also improves corner stability, although again, this

seems minimal compared to the already sure-footed M Sport X5.

When it comes to the price for all of these parts then there's no denying some of it isn't exactly cheap. The total for all these extras is £8978 and that doesn't include the fitting, which BMW quote is around three hours labour. As you might expect, the wheels take up the biggest chunk of that total at £5150 whilst the front splitter and matching rear roof spoiler together are a reasonable £1327. But bear in mind the cheapest X5 M Sport is nearly £47,000 and the 3.0d model we have here is well over £50,000, so upgrades were never going to be pennies. Although the M Performance decals on the side trims costing a whopping £116, seems a little steep. It's worth noting that the popular BMW-supplied 20-inch wheel upgrade costs an additional £1200 from new, which is a viable alternative to the M Performance 21-inch monsters.

Overall the additions undoubtedly sharpen up the already smart exterior styling of the M Sport F15. The carbon fibre works well with the Space grey colour here although its subtle effects could be lost on darker coloured examples quite easily, but then perhaps that would suit some owners. On the other end of the spectrum, the additions would stand out far more on a white car and there will no doubt be just as many owners longing for that look. After all, these BMW SAVs do project a certain image... ●

F15 X5 xDrive 30d

ENGINE: Six-cylinder, twin-turbo

CAPACITY: 2993cc

MAX POWER: 258hp

MAX TORQUE: 415lb ft

0-62MPH: 6.8 seconds

TOP SPEED: 147mph

ECONOMY: 47.1mpg

EMISSIONS: 158g/km

PRICE: £52,950

OPTION EXTRAS:

FRONT SPLITTER: £1125

REAR SPOILER: £202

REAR DIFFUSER: £905

SIDE TRIMS: £854

M PERFORMANCE DECALS: £116

HIGH GLOSS KIDNEY GRILLES: £128

CARBON MIRROR CAPS: £498

21-INCH BMW M PERFORMANCE LIGHT

ALLOY WHEELS: Double-spoke 599 M

Bi-colour, Orbit grey/burnished, complete wheel with Pirelli run-flat tyre set

FRONT: 10x21-inch with 285/35 R 21 Y

REAR: 11.5x21 with 325/30 R 21 Y: 5150

Please note that all prices include VAT but not painting or fitting. For more information on the BMW M Performance range please contact your BMW dealer.

“The M Performance parts are subtle yet meaningful enough to add a little but gain a lot”





Ultimate BMW Performance

+44 (0) 1753 657 444
tuning@birdsauto.com
www.birdsauto.com

Fantastic 4

Our latest 435i demo gets 'the Birds treatment' as our bespoke package transforms it from a gentleman's GT into a rip-roaring performance coupé



Ride. Handling. Traction.

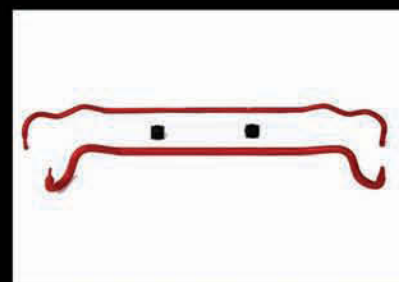
Birds B-Series Dynamics Packages for the latest 3 and 4 Series involves a combination of custom suspension and differential upgrades designed to transform the ride, handling and traction of the standard BMW;

B4 Sport Suspensions - Bilstein based dampers with bespoke damping curves perfectly matched to our B-Series sport springs.

Quaife ATB limited-slip diff - the world leading BMW LSD maximises grip and handling, accompanied with a lifetime guarantee.

B4 Anti-Roll Bars - stiffer anti-roll bars eliminate roll and understeer, perfectly tuned to complement the LSD and suspension.

We do not settle for 'off-the-shelf' products and neither do our customers. If you want guaranteed, genuine bespoke performance upgrades for your BMW, speak to the experts at Birds. Engine, braking and other performance enhancements also available. Birds B-Series Dynamics Packages span 1, 2, 3, and 4 series variants.



Call Birds on 01753 657 444

Web: www.birdsauto.com | Email: tuning@birdsauto.com

At first glance, its cute looks and pert proportions will cause many to coo over the new 2 Series Convertible when they see it for the first time in a BMW showroom, but there's a lot more to the baby open-top of the line-up. As with its predecessor, the 1 Series Convertible, it is the only rear-drive convertible in the segment so ostensibly it's for the keener driver – even if cabrios still come with the 'hairstresser' stigma in this part of the world. That's not the case all over the planet though, and BMW must be doing something right, as it sold 130,000 examples of the 1 Series Convertible, which is more than any competitor in the compact premium convertible segment

managed. And BMW is reinforcing that sporty rear-drive image in the 2 Series by offering the new Convertible in M235i guise, making it the first ever open-topped M Performance Vehicle. Rumours suggest there may even be an M2 in the pipeline...

No matter what your opinion on convertibles in general it's difficult not to be charmed by the looks of the new 2 Series Convertible, even in the restrained finish of the Sport model wheeled out for the launch in the US (the 228i won't be available in Sport guise in the UK, only as M Sport). Gone are the awkward nose and side sill styling details and in their place is a model that at once looks pretty and elegant. The cheeky face fronts a long, pronounced shoulder line that runs all the way around the car,

and it looks even better with the soft top folded out of sight behind the rear seats. The new proportions are no trick of the designer's pen either, as the 2 Series Convertible has grown in comparison to the 1 Series. It's now 72mm longer (with 30mm of that in the wheelbase) and 26mm wider overall. Improving its stance further are wider front and rear tracks – by 41- and 43mm respectively.

While these changes help with the car's appearance they also enhance its practicality. Presumably, rear seat space is improved, but it's still cramped back there so best to think of it as extra luggage space – especially as you'll want to fit the wind breaker to reduce in-cabin buffeting. Saying that, the boot has been enlarged. With the roof up

Sweet Ride

The first ever BMW 2 Series Convertible could be the best open-topped model in the company's line-up right now

Words: Shane O'Donoghue **Photography:** BMW









it's 30 litres larger than before (holding 335 litres) and even with it folded there's a usable 280 litres of carrying capacity – 20 litres more than in the open 1 Series. As before, the rear seat back folds down to reveal a through-loading aperture, but it's been enlarged. Apparently two golf bags will fit in there now. BMW is also proud of the reduction in noise in the cabin with the roof raised. Putting it up takes about 20 seconds and can be done at speeds of up to 30mph. Buyers can specify anthracite or brown 'with silver effect' for the roof if they want something different to the standard black canvas.

Although the 2 Series Convertible looks its best with the roof down, all four windows retracted and wind breaker hidden out of sight, it's also at its

windiest then and once you go above 30mph you'll quickly be reaching for the window switches and tugging the wind breaker into place. In that guise motorway speeds are comfortable enough and buffeting in the cabin is kept to a minimum. That aside, the car's composure stands out at higher speeds. BMW quotes an improvement of 20 per cent for the torsional rigidity of the body over the 1 Series Convertible and the structure must be a stiff one, as it feels every bit as solid as the 2 Series Coupé on the road.

Even on poorly surfaced roads the Convertible felt surefooted and rigid, with no obvious unwanted flex in the body. It feels light of foot too, nonchalantly stringing corners together, whether

they're high-speed sweepers or tight and twisty bends with a sprinkling of dust on the road. The steering is alert and relatively feelsome and there's real agility to the chassis. Whisper it, but this car feels more fun and engaging than its big brother, the 4 Series Convertible. That's despite its nigh on two-tonne weight. Admittedly the test car was fitted with the optional adaptive damping system, which allowed us to choose between Comfort and Sport settings depending on the road surface, but it bodes well for the car's capabilities. The Sport mode made things firmer, but not uncomfortably so and we only felt the need to switch back into Comfort guise when the road got particularly coarse. In both settings the body control was good.



F23 228i Convertible

ENGINE: Four-cylinder, turbocharged, 16-valve

CAPACITY: 1997cc

MAX POWER: 245hp @ 5000-6500rpm

MAX TORQUE: 258lb ft @ 1250-4800rpm

TOP SPEED: 143mph (140)

0-62MPH: 6.1 seconds (6.0)

ECONOMY: 40.4mpg (43.5)

EMISSIONS: 163g/km (157)

PRICE: £31,550 M Sport

Figures in brackets refer to the eight-speed automatic



British buyers can initially choose between 220d and 220i models in Sport, Luxury or M Sport specifications, though the entry-level SE trim level will come on stream in time, while the 228i variant is available in M Sport guise only as mentioned above. Standard on the Sport cars are alloy wheels, climate control, keyless ignition, sports seats, a leather multifunction steering wheel and the Driver Performance Control toggle switch. Luxury versions get larger wheels, chrome detailing, 'Fineline Wood with Oxide Silver' accents inside plus Dakota leather upholstery. Apparently the 2 Series Convertible will be the first BMW to come with the option of 'over-the-air' satellite navigation updates via the car's built-in SIM card too.

The M Sport specification adds more distinct styling updates inside and out, including a wider kidney grille up front and M Sport suspension. Buyers can upgrade this further with the M Sport Plus package, featuring Ferric grey 18-inch alloys, Xenon lights, M Sport brakes, a Harmon/Kardon

speaker system and a few other bits and pieces. The range-topping M235i has its own specification too, as it does in the Coupé line-up. Other than bespoke styling items, the M235i Convertible also adds 18-inch wheels and dual-zone climate control, plus of course its 326hp turbocharged six-cylinder petrol engine.

In 228i auto guise the 2 Series Convertible is effortlessly quick, but as we've said before about this 2.0-litre turbocharged unit, its flat torque curve (258lb ft produced all the way from 1250- to 4800rpm) disguises the pace so much that it can feel, well, flat. The chassis makes light work of the 245hp peak power too and never feels unruly. At normal speeds the engine is quiet and remote and doesn't even sound that good, but it comes alive at higher revs and with the roof down it makes a pleasing growl as it approaches the redline. As ever, the eight-speed automatic gearbox is a gem and its dual-personality that allows rapid upshifts one minute and smooth cruising the next really suits the 2 Series

Convertible. While the automatic transmission costs more to buy, it also results in a more efficient car, no matter which model is chosen.

If economy and efficiency are high up your list of priorities the 220d Convertible is worth a look. It returns 60.1mpg on the combined cycle and emits 124g/km (64.2mpg and 116g/km with the auto), while being quicker in a straight line than the 220i model – and its 295lb ft torque figures is only bettered by the M235i version.

Going on sale at the end of February, prices start at £29,180 on-the-road for the 220i Sport Convertible. That starting price will drop further when SE models are introduced, but it represents a circa £3000 premium over the 2 Series Coupé, which is saucy enough, but the equivalent 4 Series Convertible is more than £7000 extra again. Sure, the bigger car comes with added gravitas and status, but we reckon the 2 Series Convertible is a much sweeter car to drive. It's also less assuming and less grandiose, which suits us just fine ●



MStyle

BMW and Mini Specialists



"The UK's Premier Independant BMW Servicing, Styling & Tuning Specialist"



Main Dealer Level Servicing

...and it won't cost the shirt off your back!



- All BMW & Mini models
- MOT testing & Repairs
- Suspension, Brakes
- Laser Alignment
- Air Conditioning Servicing



Full Service Centre

Repair



- Purpose built Paint & Body Shop
- 6 Year Paint Warranty
- Insurance Approved Repairs



- Same Day Re-Map Service
- Full/Intermediate Interval Vehicle Servicing



- Demo & Courtesy Cars
- Nationwide Collection/Drop off

NEW!



Pneumatic ride height control

Agents for



Conversions for... E36 and E46. BMW 5 Series '97-'03, M3 and M5

Styling



- Comprehensive Styling and Performance Part Sales
- Fitting available on all parts

Remapping



A Stage 1 tuning upgrade typically gives gains of around 30bhp and an increase in torque of 70Nm.

Available for almost all BMW models with prices starting from **£277.44 including VAT**. All our remaps have been developed using extensive dyno testing and have been thoroughly tested for performance and reliability.

Wheels & Tyres



- Wheel & Styling Showrooms
- Helpful & Experienced Staff & Technicians
- Wheel & Tyre Fitting & Balancing



MStyle

Part of the Auto Enhance Group

Telephone 0208 598 9115

Online Shopping: www.mstyle.co.uk

Showroom & Service Centre: Unit 2, Northgate Park, Collier Row Road, Romford, Essex RM5 2BG. United Kingdom

All prices include VAT. Prices correct at time of going to press but subject to alteration without notice. E&OE.



Gold Standard

On the 35th anniversary of the production version of the M535i we take a fond look back at what was in its day the ultimate super saloon

Words: Bob Harper Photography: Dave Smith



owning a reliable and accurate crystal ball would be an absolute godsend for those of us trying to work out what the next 'Big Thing' in the classic car world is likely to be. Reading the classified section of old back issues makes you want to weep as some machinery has gone up in value tenfold while others have more or less stagnated and are worth today what they were ten or 12 years ago. The main problem is that it seems to be virtually impossible to work out which ones will take off and which ones will remain firmly glued to the runway.

And the subject of today's feature sits somewhere in no man's land – it's not quite taken off yet but we reckon, given time, that the E12 M535i *must* take its place at the high table of BMW icons alongside machinery such as the E30 M3 and M1. Admittedly both those machines have one crucial aspect that's missing from the venerable E12 – a full-on multi-valve M Power engine – but it has so much going for it that it seems criminal that it's so often overlooked.

While I don't want to be accused of talking up M car values to such an extent that they become

unattainable for the majority of us enthusiasts, there is a problem when values are stuck in the doldrums – the cars end up being worth as much in bits as they do as a going concern – and owners tend to be reluctant to spend a fortune restoring the cars when they're unlikely to ever get the money back when the time comes to sell it. Cheap M535is do come up for sale from time to time but we'd recommend buying a very usable machine like this car recently sold by Munich Legends. It's not perfect but it certainly doesn't need a thorough recommissioning either.

So why should the M535i become a BMW icon? Well, to start with, it has rarity value in spades – just 1410 rolled off the German assembly lines – and while some additional models were manufactured in South Africa, right-hand drive production for the rest of the world was limited to just 450 examples. Rarity in itself doesn't always lead to rarefied status though; there needs to be something else, and the E12 M535i has that too – it's the great granddaddy of all generations of M5 and was the first M car to be conceived, designed and constructed wholly by BMW Motorsport. And surely the icing on the cake is the

fact that it actually looks really rather cool, too.

Amazingly for a machine that still looks pretty fresh it's now 35 years since the first examples started rolling down the 5 Series line at BMW's Dingolfing before being plucked from the factory floor by Motorsport to be finished at its facility on the Preussenstrasse in Munich. There had been large-engined Fives before the M535i made its motor show debut at Frankfurt in 1979 as BMW had been quietly shoehorning big 'sixes into E12 shells for favoured clients and BMW in South Africa had (in conjunction with BMW Motorsport in Germany) made the 530MLE in order for the car to be eligible for the 3.0-litre class in modified production class racing. But it wasn't until 1980 that the masses (if you can call 1410 owners masses) could get their hands on the ultimate 5 Series.

And those owners would have needed to be well-heeled ones, as back in 1980 an M535i would have set you back £13,745 – which was less than you'd pay for the mechanically virtually identical 635CSi but £4000 more than a mildly sporting 2.8-litre Ford Granada or Opel Senator would have cost. You did,



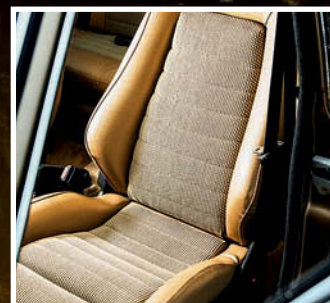
however, get plenty for your money with the BMW, at least in terms of hardware, as just about everything that could have been uprated for the M535i was.

In the UK the hottest Five up until this point was the 528i and while it was no slouch, slotting the 218hp M30 'six from the 635CSi and 735i into the lighter E12 shell made the M535i an absolute flying machine. When *Autocar* tested one back in 1980 it recorded a 0-60mph time of 7.1 seconds and a top speed of 139mph and while those stats are now comfortably matched by a 2.0-litre diesel hatch, 35 years ago those sort of figures were pretty astonishing for what was still a hugely practical five-seater saloon.

And it wasn't just the raw numbers that were inspiring as Munich's straight-six made all the right noises, too, something that still holds true today and is immediately apparent as we pull away from Munich Legends' forecourt in this car's pleasingly period gold livery. At low revs it burbles away with a deep bassy growl, increasing in pitch and timbre as the revs climb until it takes on all of the aural characteristics you expect to hear from a BMW 'six at full chat. It's not quite as sensational as a full-on M



The M535i's cockpit wasn't lavishly appointed but the superb Recaro seats gripped you in all the right places while the M1 steering wheel was very tactile





E12 M535i

| |
|---|
| ENGINE: M30 straight-six, SOHC, 12-valve |
| CAPACITY: 3453cc |
| MAX POWER: 218hp @ 5200rpm |
| MAX TORQUE: 224lb ft @ 4000rpm |
| WEIGHT: 1350kg |
| 0-62MPH: 7.5 seconds |
| TOP SPEED: 138mph |
| NUMBER MADE: 1410 |
| PRICE (NEW): £13,745 (1980) |

Power unit but it's not that far off, and in something like this E12 there is so much less in the way of sound deadening, far less than you get in today's offerings, that you can really hear the noise properly.

Adding power is all very well but it's a complete waste of time if other areas of the car aren't uprated to cope and this was where BWM Motorsport really hit the bull's eye with a series of subtle but hugely effective modifications. As I'm piloting our test car to the photo location I'm immediately struck how it feels so much tighter and more-of-a-whole than any other E12 I've driven. There's more heft and feel to the steering with a decent amount of chatter and feedback coming through that hugely evocative M1-style steering wheel.

A normal E12 feels positively prosaic in comparison, especially when you pitch one into a corner as there's excessive body roll that can almost set up a corkscrewing feeling if you hit an undulation in the road surface mid-corner. The M535i is much more planted and that's not just down to the more modern rubber and the bigger-than-standard Alpina rims that 'our' example is running on. There's significantly more poise built into the chassis, less body roll and a greater resistance to understeer. We don't go mad on the day of the shoot as the roads are damp and this car has just found a buyer so there's a very real need to bring it back in one piece but it did, in its day, have a bit of a reputation for being tail happy and that still holds true today, especially if you don't drive it properly. The semi-trailing arm rear suspension might have been honed for the M535i but it'll still bite the unsuspecting but, if driven with respect, it is very controllable. Slow-in, fast-out is definitely the order of the day when driving one of these and so long as it's treated thus you can cover ground very rapidly indeed. Pitch it into corners while still on the brakes or lift-off mid-corner and you'll be looking at a recipe for disaster, particularly in the wet.

Chassis changes consisted of unique springs with Bilstein dampers and uprated anti-roll bars measuring 24mm and 18mm front and rear respectively. Wider BBS alloys measuring 6.5x14 inches were fitted as standard and these were equipped with 195/70

Michelin XWX tyres, which were considered to be very grippy rubber 35 years ago. A limited-slip differential was a standard fitment which gave better grip accelerating out of corners and allowed owners to delve more readily into the playful side of the M535i's chassis. Despite the significant rise in performance the 528i's braking setup was deemed to be adequate enough so the 280mm front disc diameter was retained although for the M535i those discs were 3mm thicker to better resist fade.

That was more or less it for hardware changes for the hottest of E12 Fives although those hoping for an automatic gearbox would have been disappointed – this was to be a driver's car *par excellence* and, as a result, BMW deemed that the only transmission option for European cars was to be the Getrag close-ratio five-speed unit with a 'dog-leg' change pattern. In normal use the 'box actually works really well, although selecting first does initially take a bit of getting used to, especially in a right-hand drive machine (it always seems a more natural movement when in an E30 M3 with the same shift pattern as this). Once on the move, though, having second and third gears on the same plane is a real bonus when attacking a twisty back road.

Cosmetically there were a couple of external changes to the standard E12 shell for the M535i: a deep front spoiler that not only helped to reduce front end lift but also channelled air to the front brakes and a chunky black rubber spoiler sitting atop the bootlid, although this latter item is missing from this particular machine. Motorsport striping was an optional extra (and looked fantastic on white cars) while in some markets the M535i could also be spec'd without the spoilers for the super-stealthy look.

There was no mistaking the M535i's sporting intent when you step into its cockpit, though, as the front armchairs you'd find in the rest of the range had been replaced by a pair of body-hugging, high-back Recaros clad in a corduroy-type material, although leather was also an opulent option for the last word on luxury. The only other change was the M1 steering wheel with its flat face and thicker-than-normal rim. It was also significantly smaller in diameter than the

standard 5 Series steering wheel which, on some models, felt like it would have been more at home on the bridge of the QE2. Everything else is traditional BMW – the dash angled towards the driver, four plain but oh-so-clear dials and some natty detailing such as the digital clock sitting in the middle of the rotary fan switch. It's a great place to spend wheel time and you can imagine stepping out after a cross-continent jaunt feeling fresh as a daisy.

Despite the inclement weather the M535i is still a hoot to punt around the back roads of Sussex – you can easily potter around in a high gear letting the torque take the strain as it's really a very flexible engine, but once you've delved into the performance you'll want to drive it harder to hear that peach of a 'six strut its stuff and to see if you can tame a car that in its day did have a bit of a reputation for being a handful for the unwary.

It strikes a great balance between being compliant enough to cope with our sorry roads – even on its modern 16-inch wheel and tyre combination – yet there's enough stability and poise to not feel like you have to tippy-toe around in these inclement conditions. For someone looking for a classic that can be enjoyed by all the family this really has to be a superb choice. The E12's delicate lines are perfectly complemented by that front chin spoiler and while there's far too much chrome to be a more modern design the shape of the E12 manages to appear both fresh yet retro at the same time.

True, some parts are becoming a little hard to get hold of but mechanically it's a pretty simple piece of kit and far less complicated than a more modern M car to look after. No one can know exactly which machines will become coveted by collectors in the future but I'd argue that the E12 M535i really should be one of them. It has the looks, performance, useability and the heritage to sit up there with the best of them. Snap one up before it's too late ●

THANKS TO:

Munich Legends

Tel: 01825 740456

Web: www.munichlegends.co.uk



At low revs it burbles away with a deep bassy growl,
increasing in pitch and timbre as the revs climb



Two of the World's



**Causeway
Coastal
Route**

5 DAYS, 4 NIGHTS

May, June, July & September 2015

The Causeway Coastal route is rated as one of the World's Great Road Journeys alongside the garden Route in South Africa and the Pacific Highway in California. It also boasts one of the top 5 views in the world. The 120 mile route takes you from Belfast Lough to Lough Foyle a journey from the birthplace of the Titanic to the historic walled city of Derry. The route transports you along a stunning coastline, past spectacular scenery, windswept cliffs and unspoilt beaches, a coastline sprinkled with historic castles, churches and forts as well as world class attractions like the UNESCO World heritage site at the Giants Causeway and the famous Bushmills Distillery. This tour is a journey of exploration where imagination meets reality.

FROM £399.00 PER PERSON

Based on 2 persons in a car and sharing a twin/sdouble room

Including

- Return Ferry Crossing ■ 1 Nights in Carrickfergus
- 2 Nights in Coleraine ■ 1 Night in Belfast
- 4 Full Irish Breakfasts & 2 Dinners
- Detailed Road Book & Tour Rally Plate
- Complimentary Car Parking at all Hotels



Giants Causeway



Dark Hedges

OR COMBINE BOTH

GRAND

12 Days, 11 Nights

- Return Ferry Crossing
- 2 Nights in Belfast
- 1 Night in Coleraine
- 1 Night in Bundoran
- 2 Nights in Galway
- 2 Nights in Killarney
- 1 Night in Waterford



 ireland.com

www.sceniccartours.com - TO BOOK YOUR PLACES ☎ 01732

Great Road Journeys

8 DAYS, 7 NIGHTS

June, July & September 2015

The Wild Atlantic Way is a world-famous coastal route that spans 1500 miles and through seven of Ireland's counties, taking in some breathtaking scenery along the way. From Galway to Kerry and Kerry to Cork, the Wild Atlantic Way is a journey of discovery. You'll drive routes that ring great peninsulas reaching out into the ocean. Tiny roads hug the shoreline then switchback high above the Atlantic swell. Ireland's west coast boasts some of the world's most spectacular scenery from the towering Cliffs of Moher and the weird 'lunar' landscape of The Burren to wide, almost deserted sandy beaches and picturesque seaside villages such as Ballyvaughan and Quilty. One thing all these have in common is that they offer superb views of the Atlantic Ocean in all its moods.

FROM £699.00 PER PERSON

Based on 2 persons in a car and sharing a twin/double room

Including

- Return Ferry Crossing ■ 3 Nights in Galway
- 3 Nights in Killarney ■ 1 Night in Waterford
- 7 Full Irish Breakfasts & 3 Dinners
- Detailed Road Book & Tour Rally Plate
- Complimentary Car Parking at all Hotels



IN ONE GREAT TOUR

IRELAND

25th August to 5th Sept 2015

- 1 Night in Belfast
- 4 Breakfasts & 2 Dinners
- Detailed Road Book
- Commemorative Tour Rally Plate
- Free Car Parking at all Hotels

FROM £999.00 PER PERSON



WILD ATLANTIC WAY



879153 OR SEE OUR WEBSITE - www.sceniccartours.com





M IS FOR MONSTROUS

Purists may balk at the fact that one of the range-topping M cars is based on the new X6, but few can argue with its credentials or ability

Words: Shane O'Donoghue Photography: BMW

We all knew it was coming, but there's still something shocking about the arrival of an all-new edition of the X6 M. However, it seems there's enough demand around the world for such a car to justify a second coming.

On the BMW stand at the Los Angeles Auto Show late last year, where it and the X5 M made their world debuts, its proportions were skewed by harsh lighting and the crowds baying to get a closer look. After all, the USA is the biggest market for BMW X models and also for BMW M. No surprise then that we're back in the States for the first drive event and under the warm Texan sun the X6 M suddenly looks very big.

Aptly, the launch cars are all painted in Long Beach blue metallic, one of the two new exclusive M paint finishes (the other is Donington grey metallic) and it's incredibly shiny and reflective when it's sunny out. One observer wondered if that is to distract from the bulky design of the car itself... The regular X6 divides opinion as it is; the X6 M starts arguments and could cause friends to fall out. BMW boasts about the exterior being painted fully in body colour, but this only serves to accentuate how much body there is to paint and it's particularly noticeable at the rear, where the new boot spoiler, chunkier bumper with its diffuser and the quad exhausts try their hardest to distract your eyes. This car really needs the optional 21-inch alloys (as pictured) to look at its best, despite a 10mm drop in ride height from the standard car.

Many won't like the side view any better, with its contrived rear haunches and long overhang behind the rear wheels, but it at least looks in proportion from the side. We have no issues with the styling from the B-pillar forwards, which is classic M in its detailing of the characteristically aggressive X style.

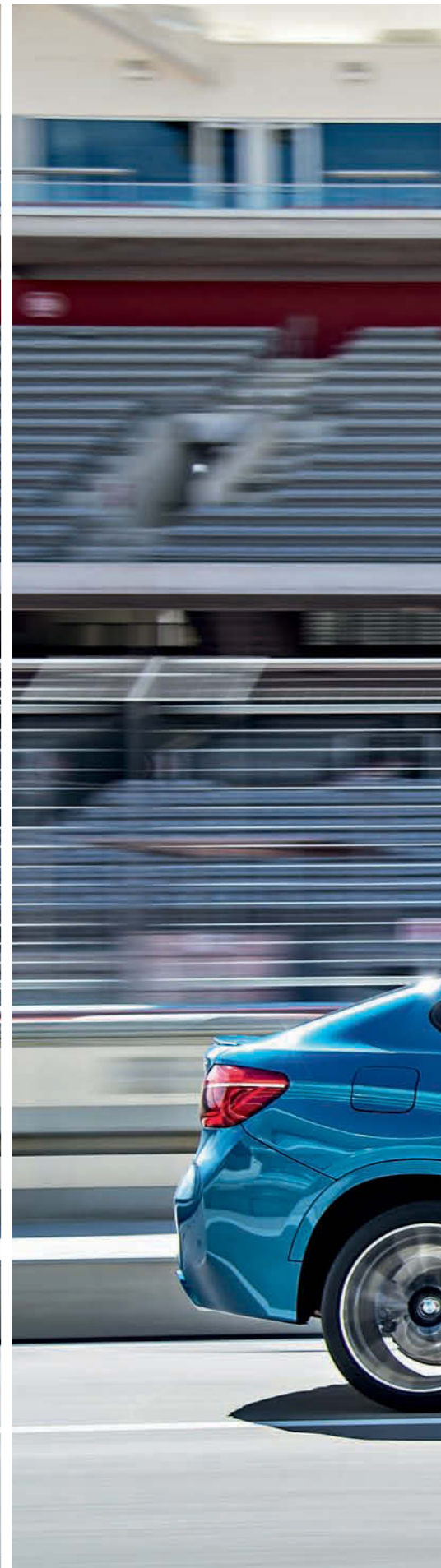


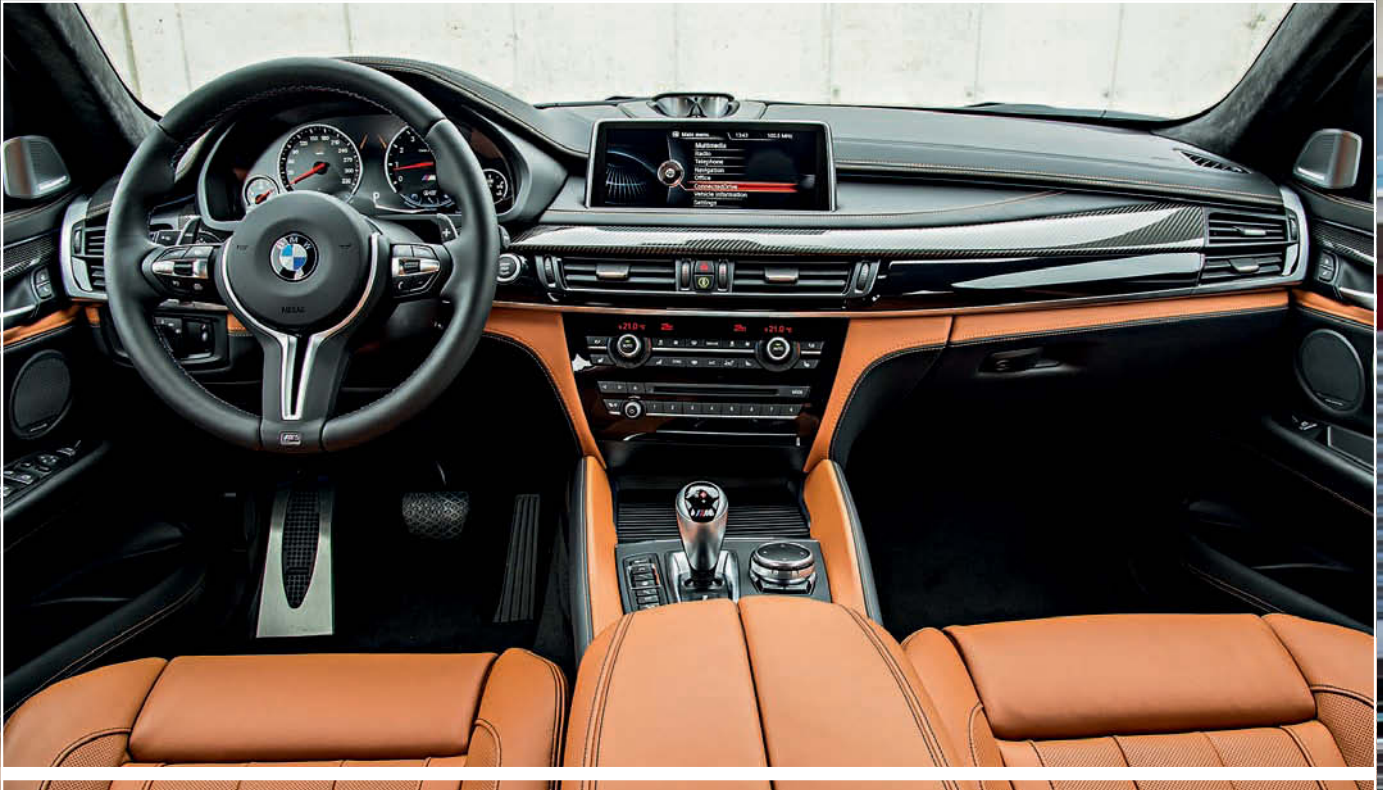
The nose is dominated by a smattering of air intakes and the new-look headlights give the X6 more attitude than before. Those air inlets aren't just for show either, as the X6 M features an advanced new cooling system to control the temperature of a range of items – including the two turbochargers, front brakes, transmission, charge air and the engine itself. BMW's engineers are particularly proud of the fact that this 2.3-tonne behemoth can be caned around a hot track all day and all systems will remain at their optimum temperatures.

They paid more than lip service to this too, by letting us loose on the Circuit of the Americas Formula One track, with nothing more than an ex-F1 driver ahead to pace us. Clearly this is not the natural habitat of any large SUV, even one breathed on by the mighty BMW M division, but it did allow a quick and safe environment in which to assess the full handling capabilities of the X6 M. Quick being the operative word, as, even on a wide and smooth F1 track, the X6 M has the ability to silence even the most talkative of passengers. BMW quotes a 0-62mph time of 4.2 seconds. Putting that into perspective, the M4 Coupé, fitted with the quick-thinking M DCT gearbox, is only 0.1 seconds faster. No doubt the traction afforded by the xDrive four-wheel drive system helps to negate the considerable extra weight the X6 is carrying around.

Saying that, the X6 M is also endowed with the most powerful of all the BMW M engines right now. The core unit is the same 4.4-litre V8 as that in the current M5, but it has been updated so peak power is 575hp (produced from 6000- to 6500rpm) and maximum torque is quoted as 553lb ft. Not only does the latter figure better the mighty triple-turbo X6 M50d's, it's available across a wide plateau – from 2200- to 5000rpm – and it's ten per cent higher than the previous X6 M managed. It's no wonder the engine shrugs off the weight of the X6 with such impunity. At seemingly any speed, floor the throttle and it reels the horizon in with increasing alarm – and noise. As in the M5 this V8 is best heard from outside the car (or through a long tunnel with the windows down), but there's no doubting its intent as it growls and roars towards the redline, accompanied by audible whooshes from the two turbochargers. Melodic: no. Serious about its performance: very much so.

Unlike the M5, the X6 M employs BMW's eight-





The X6 M's cabin is as opulent as you'd expect in a high-on £95k SUV and there are some nice touches that add a bit of class such as the leather dash and Alcantara roof





For this incarnation of the X6 M we have the M5's V8 under the bonnet that doles out 575hp and a whopping 553lb ft of torque. It's rather rapid – 0-62mph in 4.2 seconds

F16 X6 M

ENGINE: V8, twin-turbo, 32-valve

CAPACITY: 4395cc

MAX POWER: 575hp @ 6000-6500rpm

MAX TORQUE: 553lb ft @ 2200-5000rpm

WEIGHT (EU): 2340kg

0-62MPH: 4.2 seconds

STANDING KILOMETRE: 22.6 seconds

TOP SPEED: 155mph (limited)

ECONOMY: 25.4mpg

EMISSIONS: 258g/km

TRANSMISSION: Eight-speed steptronic

STEERING: Electric Power Steering (EPS) with M-specific Servotronic function

BRAKES: Front: six-piston fixed-callipers, vented discs.

Rear: Single-piston floating-callipers, vented discs

WHEELS: 10x20-inch (front), 11.5x20-inch (rear)

TYRES: Pirelli P Zero, 285/40 R 20 (front) and 325/35 R 20 (rear)

PRICE: £93,070





speed Steptronic automatic gearbox, but it has been tweaked to operate in a similar manner to the dual-clutch transmission fitted to most M cars. Hence it has the same stubby little gear lever, variable settings for the calibration and tactile gear change paddles behind the chunky leather M steering wheel. At a cruise it's silky smooth as in any other BMW application, but it can do the whole violent high-speed gearshift on a full throttle thing too if required and it's nigh-on perfect. The high gearing helps improve the official fuel economy figures and there's a launch control feature. Presumably that wasn't employed when the 25.4mpg combined economy was recorded... For the record, after two six-lap stints on track, we averaged less than 10mpg.

For the first few laps the X6 M felt utterly composed. The speed of it (and the track) required concentration, as you'd expect, but it's a docile car to drive quickly, much more forgiving than any of the rear-drive M cars. The body control is simply astounding, thanks no doubt to the standard Dynamic Drive roll stabilisation system. Under hard acceleration it doesn't squat noticeably, and likewise, when hauling the car down from nearly 150mph on the longest straight, the front end doesn't dive significantly. The brakes are potent too and though not carbon ceramic in their construction, they cope admirably with the weight of the X6 M and the pace of this fast circuit. Even after six laps the stopping power is still there, though the easy-to-modulate pedal did soften a tad. The discs themselves are a compound design, drilled and inner-vented all-round. The distinctive blue brake callipers are a six-piston fixed design up front and a single-piston floating item at the rear. Despite a 1.6kg weight reduction in the brakes (over the previous X6 M), BMW says that the front brake lining surface area is 50 per cent larger than before, which explains the stopping power.

Unsurprisingly, it's the tyres that give up the ghost first. Michelin Pilot Super Sport UHP tyres are standard fit, and they seem perfectly fine on the road (other than a lot of noise on certain surfaces), but it's clear that they're not up to sustained periods of track work under a car as heavy as the X6. Before they overheat, the X6 M makes a good fist of turning into the tighter corners, dealing with the wicked direction changes and even letting the driver trim the line by judicious use of the throttle through a long, long sweeping right hander. After a little practice – and





At seemingly any speed, floor the throttle and it reels the horizon in with increasing alarm – and noise

with the middle DSC stability control setting engaged (MDM: M Dynamic Mode) – it's possible to exit the tighter corners with a whiff of oversteer. The brave, foolhardy and those with a large tyre budget and an airfield to play on may even coax a power slide out of the car by turning off DSC completely.

None of that is advisable when driving on the public road, as the limits of adhesion are so high that you'll be travelling way too quickly already. It just grips and goes. That's not to say it's no fun at all. While there's little of the engagement and challenge to driving the X6 M as in some of the company's best drivers' cars, it's still a hoot. The steering isn't very communicative (and we found it best left in Comfort mode, as Sport and Sport Plus are just unnecessarily heavy), but somehow there's always plenty of information coming through the chassis so you know what's going on. Perhaps a little too much when all you want to do is cruise in comfort. It will feel like a big car to be hustling when it comes to British B-roads though, regardless of its prowess and grip.

Many will buy it, not for that, but because it, along with its mechanically identical twin brother, the new X5 M, is the top of the BMW SUV tree. Hence the £93,070 price tag – nearly £30,000 more than the X6 M50d. That's an awful lot of money, but in fairness, the X6 M feels like a high quality product. Even those that don't fully appreciate the engineering effort gone into creating this car will have to admit that the interior is a bit special. It features all the usual M accoutrements, such as the multifunction steering wheel (with its programmable M1 and M2 buttons) and gearshift paddles, the M-specific instruments and menu items in the iDrive system, the aforementioned stubby gear lever and redesigned centre console, plus the X6 M door sill plates. BMW Individual items include the roof lining and leather-covered dashboard, but the standout feature is the gorgeous set of sports seats. They're swathed in fine-grain Merino leather, feature contrast stitching and an embossed M logo in the backrests. The test cars featured full electric adjustment too, including variable

side bolsters to accommodate drivers of all shapes and sizes.

The leather upholstery is featured in the rear as well, which offers decent space for three adults. On top of that, the rear seat back splits and folds 40:20:40 and the boot is, despite the sloping rear, simply cavernous. BMW quotes a capacity of 650 litres, expandable to 1870 litres with the back seats folded down. With no spare wheel under the boot floor there's also a sizeable secondary storage area.

As you'd hope for the range-topper, the X6 M is well-equipped as standard, specification highlights for it (and the X5 M) include cruise control with a brake function, front and rear Park Distance Control, automatic lights and wipers, dual-zone climate control, one-touch electric windows all-round, Enhanced Bluetooth voice control and 20GB hard drive-based infotainment with BMW's Professional DAB and Professional Multimedia Navigation systems. The M-specific head-up display is also standard. You'll be needing it ●



E46 M3 CSL STYLE EVOLVE CARBON AIRBOX

An E46 M3 with the **Evolve CSL Carbon Airbox** creates one of the most ideal all round sports cars for enthusiasts - producing more power, improving throttle response and supplying that fantastic CSL style induction roar.

The **Evolve CSL Carbon Airbox** is made from the highest quality 100% pre-preg carbon, mated with a custom MAFLESS Alpha-N ECU calibration which allows perfect running of the engine while taking advantage of the increased airflow.

Add 25-30hp | CSL Sound | Improved throttle response



evolve

Call 0871 231 1001 | Email sales@evolveautomotive.com | www.evolveautomotive.com

FlowForm

New molecular structure of rim for
stronger and lighter performance alloy wheel.

BKRACINGUK



BK170

BK677

BK660



BK
RACING

WWW.BKRACING.CO.UK
TEL: 01392 20 30 44





DOUBLE TROUBLE

We meet two owners in Australia with a pair of modified E30 M3s for the track and road that follow very different paths to achieve similar goals...

Words: Simon Holmes Photography: Brodie Butler

If there was ever an automotive example to best capsule the expression 'there's more than one way to skin a cat' then it's this pair of E30s. These two Australian-based cars are both genuine M3s and both are heavily modified to be hugely effective on both the road and track. But their owners Phil Peak and Scott Lockhart have taken very different approaches and their cars are as different as chalk and cheese, or black and white to use a more accurate analogy. Exterior-wise they may seem similar, aside from the polar opposite Touring Car liveries, but inside and, more importantly, under the bonnet they are very different machines.

We'll start with Phil's car, the Diamond black example that perhaps represents the more orthodox side of M3 tuning. Powered by a heavily breathed upon S14 engine that's pumping out 217hp at the wheels, with the rev limit set to only 7200rpm, it certainly suits the Touring Car theme! As you might expect, Phil is no stranger to a BMW, particularly an E30, although he admits he was actually an avid VW enthusiast before making the transition over to

“I wanted to drive it on the track as I don’t believe in garage queens”



The M3 interior has been restored and retrimmed so that it's as good as new

BMW. It began with an E30 325i he purchased in 1997 from a friend but he admits he's been fond of them for much longer. "I've always liked BMWs really," recalls Phil. "I was in my late teens living in West Germany when the E30s were released. They had an M3 at the local dealership and I remember looking at it every time I went past thinking 'one day...'"

He's since owned several rather fine E30s over the years including a convertible fitted with an S50 engine from an E36 M3. But his boyhood dream to own a genuine M3 took a little longer to fulfill as other commitments had always posed a problem and it wasn't helped by the fact E30 M3s are rather difficult to find in Australia. So when the right chance came up at the right time to own this car he jumped at it. "I was lucky enough to know the previous owner," tells Phil. "He had just imported the car from Japan after buying it blind at auction and after taking delivery he got a job offer he couldn't turn down. He didn't want to take the car with him so I knew he had to sell it before he moved. We came to an agreement on price and I bought it off him."

Finally, the elusive E30 M3 was his, except this particular car was in what Phil describes as "fairly

Phil's M3 still packs the S14 engine but it's been heavily modified and makes over 217hp at the wheels thanks to a 2.3-litre conversion



average condition", having been fitted with an aftermarket front fibreglass bumper and a mismatched interior. The car had also received a poor quality blow over respray in Japan for the auction and then there was the small matter of mechanical health. "The performance was a big let down after driving the S50-powered convertible. Even though this only had 114,000km on the clock the engine most definitely needed a freshen up but I knew I could sort all that out," he explains.

A mechanical fitter by trade, and not one to do things by halves, Phil developed a plan to thoroughly restore the tired M3 and rebuild it into a usable and capable all-rounder for both the road and track: "My intentions with the car have always been to bring it back to its former glory no matter how long it takes, as this car is a keeper. And I wanted to drive it on the track as I don't believe in garage queens."

Initially, Phil intended to address the bodywork first but after testing the water with the car at a track day he decided it would be best to sort out the mechanical side of things before anything else. "The engine was lacking a bit of power so I decided to tear the whole thing down and do a full rebuild with the

aim of improving things along the way," he says. "I set about finding all the various parts for the rebuild and once I had them I sent the block away to be rebored and the cylinder head went to VAC Motorsports in the USA for one of their Stage 3 head builds."

The block was treated to a 2.3-litre competition spec rebuild with heavily uprated internals. Ready for the head's return, Schrick cams and a carbon fibre DTM-style intake were put aside along with plenty of other tasty bits. The engine build actually took nearly two years to complete from start to finish due to other commitments, or "life getting in the way" as Phil puts it. In the meantime, with the engine build at least started Phil began on other areas that required his attention and the interior was next on the list.

First of all he sourced the correct front seats and then got hold of a full retrim kit from Germany, along with an M3 Sport Evo steering wheel, gear knob and footrest. "I like to have a few creature comforts. I didn't want to gut the interior and stick a cage in as it's not a dedicated track car, plus it's illegal over here to drive around in a stripped-down car with a cage."

With that covered, next came the exterior. Not wanting to deviate too far from the M3's iconic look,

Phil chose his additions carefully in the shape of an M3 Evo rear wing and matching front lip spoiler along with smoked headlights, tail-lights and indicator lenses. The look is finished off perfectly with the 8x16-inch BBS three-piece split-rims that closely mimic the original style. However, it's the livery that makes the biggest visual impact and it was fitted in an effort to brighten up the Japanese blow over paint job, which certainly seems to have worked. "Of course, the car is the wrong colour for the original Warsteiner graphics but I thought they looked okay in reverse colours so decided to go for it," Phil reveals. "The graphics don't look too out of place. When I eventually get the paint done I will be happy with the black-on-black look as I think that's the best exterior/interior colour combo but I think it will be like this for a while as I want to enjoy the car a bit before getting it painted."

When the engine was eventually back together it was time for the first drive and thankfully it proved to be everything he had hoped for. "The first real drive after the rebuild was great," Phil grins. "On the dyno we set the rev limit to 7200rpm to be safe and got 217hp at the wheels with it still pulling really strong at

the limiter. It's not far off my cabriolet in terms of power but so much better to drive."

The rebuild took three whole years to complete and Phil tells us the hardest and most frustrating part was actually sourcing bits and getting them delivered, as virtually everything had to be imported. The car isn't completely finished yet but Phil is understandably pretty happy with what he's achieved since owning it as the M3 already puts a lot of bigger power cars in their place on track. "Over here they are all into big V8s and muscle cars and it certainly holds its own," Phil says. "The noise from the carbon fibre intake is my favourite part – it just screams and puts a huge grin on people's faces. The suspension needs improvement now the power is sorted but this build still has a long way to go to get the car where I want it to be. But as it's a work in progress I'm really happy with the way things are going." Future plans also include a revised engine map so then the rev limit can be raised to the untold reaches of 8500rpm and that should release a bit more power, too.

Speaking of more power, now seems like a fine time to introduce Scott's Alpine white M3. Whereas Phil has gone to town on the original S14, Scott's car is a little less conventional, having been fitted with an S50 six-cylinder that happens to be turbocharged to

produce a huge 480hp at the wheels. Fair to say it's a beast, but it's just at home on a track as Phil's car is and that was always the intention.

Much like Phil, Scott's interest for BMWs also developed some years ago and it began with an E30. It started in 1995 when he was lucky enough to stumble across a rare John Player Special E30 323i Coupé at an upmarket car dealership in Perth. A very limited number of these special edition cars were built to celebrate BMW's victories at the famous Bathurst race in Australia during the 1980s. The cars featured iconic black paintwork with gold pinstripes, Recaro seats, an LSD and gold JPS insignias on the C-pillars. Scott was still at uni at the time but it was love at first sight for him and he had to have it.

He bought the car and then lavished his time and money on the car over the next few years, spending nearly every pay check he had upgrading the engine, suspension and wheels. It rewarded him with a lifelong appreciation for the brand, though. "That car, and the sheer ease with which it connected me as a driver started my obsession with BMWs and it's been a love affair ever since," he states.

That's not an understatement either as he's since gone on to own a vast array of interesting BMWs. He still owns a fine fleet, worthy of a *What's in your*

Garage? feature, comprising an E60 M5, an E24 635CSi, an E28 M535i and an E30 323i Coupé. "I love collectible BMWs, preferably with some sort of motorsport connection," he says. His dream car is a BMW M1 but the E30 M3 is a close second, and that's the one we're interested in – for now, at least.

For Scott, the M3 has always been an iconic car and when it came to eventually replacing his first E30 love there was only one suitable choice, as he explains: "I never got over having to sell my E30 JPS when I left Australia in 1998 to further my career in London. While I owned that car I always wanted an M3 but couldn't afford one. I'm lucky that my wife, Marissa, is also a huge car fan and when I told her I was considering adding another BMW to our fleet she immediately took to the shape of the E30 M3."

However, as Phil found, finding an M3 in Australia is tricky and Scott had to use all his resources, both near and far, to locate one. "I had friends looking in the USA and the UK for me, while I spent most nights glued to my computer screen checking out VIN numbers, history and pictures," he explains. "After about a month my wife asked, 'why haven't you looked locally?' to which I replied, 'well, honey there aren't very many of these cars, so finding one in Perth would be a longshot.' At that point she had already

An S50 engine from an E36 M3 coupled with a turbo is the reason why Scott's car produces a huge 480hp



found one for sale, 20 minutes from our house, and in Alpine white no less. With only a very small handful of these cars in Australia, I was amazed, and now I listen intently when my wife talks BMWs," he admits.

The car was not exactly what you would call a perfect standard example, though. Far from it, in fact. The original S14 motor was long gone, apparently having made its way into a 2002. In its place was the S50 conversion complete with turbo already fitted. This wasn't an issue for Scott as it happened to suit his overall plan for the car as the M3 was destined for heavy track use. "I wanted something that was able to produce more power than the S14 with track car reliability. S14s can create great power but they can become quite fragile on long events. The newer M3 engine with a little boost added for a bit more of a surprise was the way to go for me," Scott tells us.

Having competed in club level events for a few years in a modified R32 Nissan Skyline GTR, the intention was to introduce his love of BMWs into his competitive racing. But with the likes of heavily modified Mitsubishi Evos and Nissan GTRs to compete against, the more modern engine helped level the playing field in terms of power.

However, there was work to do before it could start battling on track with tuned Japanese machinery as

Scott's car is very different inside, although the Stack dash is soon to be replaced with period analogue gauges



“Not only is it rare, it is well balanced and easy to drive, too”

although the turbocharged S50 engine was in place it was barely running, largely due to electrical issues. There were also plenty of other problems to address. "It looked great when I purchased it but it needed time spent on it to deal with the electrical gremlins. It also needed new wiring, brakes, wheels, a livery and a decent tune," Scott states.

On the plus side, the paintwork was in good condition having recently been resprayed to a high standard. Influenced by the Touring Cars he watched when growing up, Scott decided the Warsteiner livery would suit the car well. The 1980s Touring Car-inspired theme extended into the cabin and although the car was already stripped of an interior when he got it, Scott had it blasted, cleaned and painted Touring Car-style glossy grey inside. The DTM gearshift knob will soon be joined by a full DTM dash to replace the current Stack unit, too.

The build to bring the car up to a good, working standard took nearly a year and plenty was changed in that time. The work was entrusted to Galvsport in Perth and the guys there spent many hours on the car. Scott remembers the first time he went out in it as it was actually Josh from Galvsport who first took me for a spin. "It was in the Warsteiner colours, numbers on the doors, no bonnet, race tyres, race seats and harnesses and all in peak hour traffic, it was a blast. I was stunned how quick it was from the passenger seat, and it wasn't long before I got a chance to drive it on the track," he enthuses.

Scott reports that the car does, in fact, handle the power very well on track and on occasion it's also driven on the road, usually to and from events or for a spin up and down the coast. But wherever he goes it gets a great reaction. "Everyone young and old loves it and it gets a lot of attention. Nobody knows

what to expect from it and not only is it rare, it is well balanced and easy to drive, it puts a smile on your face every time," says Scott. "They say that a good track car drives terribly on the road and while my M3 certainly is no M5, it still drives very well. The power delivery is like a light switch in low gears but if you cruise in fourth or fifth it is very enjoyable to squeeze on some of that boost on the open roads."

Future plans for the car involve improving grip further as there's more development work to be done on the suspension setup to improve what's there. There's even talk of a bit more boost and Scott would like to enter the car in Targa road rallies once the suspension has been fine tuned to deal with the bumpy roads.

So there you have it. Two very different ways to effectively achieve a very similar impact. We would happily take either one ●



Phil's Black M3

ENGINE & GEARBOX: S14 2.3-litre producing 217hp @ 7200rpm at the wheels, VAC Motorsport Stage 3 cylinder head, 1mm oversized valves, balanced and blueprinted, VAC valve springs with titanium retainers, Schrick 284 intake and 276 exhaust cams, VAC adjustable cam sprockets, 48mm throttle bodies, Volvo green injectors, carbon fibre DTM-style intake plenum, 50/50 headers mated to full stainless steel Supersprint race exhaust, Miller MAF Conversion with WAR Chip engine management, fully rebuilt /balanced bottom end by Galloways race engineering using CP 2.3 competition spec pistons (11:1 compression), OS Gieken clutch and lightweight flywheel, Dogleg gearbox 3.7:1 differential with LSD

CHASSIS: Tein coilovers all round, AC Schnitzer front and rear anti-roll bars, polyurethane bushes throughout

BRAKES: Standard M3 callipers with uprated discs and pads all-round, braided brake lines, uprated pedalbox

WHEELS & TYRES: 8x16-inch BBS RS three-piece split-rims with 215/45/16 Toyo R888 tyres

INTERIOR: Original seats retrimmed black leather, Sport Evo steering wheel, gear knob, footrest and centre armrest, Hartge centre console gauge holder with AEM data logging

EXTERIOR: Diamond black paint, colour reversed Warsteiner livery, smoked indicators, tail-lights and crosshair headlights, carbon fibre front splitter and brake ducts, Sport Evo rear spoiler with carbon fibre wing

THANKS: Simon Gunson at GTI Performance Centre (service@gti-pc.com.au), David at Galloway Race Engineering (08 9531 1366) and VAC Motorsports sales@vacmotorsports.com

Scott's White M3

ENGINE & GEARBOX: S50 3.0-litre producing 480hp @ 7500rpm at the wheels, standard crankshaft, Carillo steel conrods, custom-made forged pistons with 7.5:1 compression ratio, custom turbocharger with Tial 50mm external wastegate, custom-made tubular exhaust manifold, standard inlet manifold with uprated injectors and billet fuel rail, PWR front mount intercooler, custom downpipe and stainless steel exhaust system, custom alloy radiator with electric fan, custom alloy breather and header tanks, Bosch 044 fuel pump, Haltech ECU, standard E36 M3 five-speed gearbox, one-piece propshaft, 4.3:1 differential with LSD

CHASSIS: Bilstein coilovers all round, Racing Dynamics front and rear anti-roll bars, Ireland Engineering adjustable camber top mounts, strut braces, OMP rollcage, BMW Z4 close

ratio steering rack, polyurethane bushes throughout

BRAKES: Front: StopTech four-pot callipers with 330mm discs. Rear: Standard E30 M3 discs and callipers, Pagid yellow pads all-round, braided brake lines, AP Racing pedalbox with remote reservoirs

WHEELS & TYRES: 8x18-inch and 9x18-inch Compomotive TH18 wheels with a range of track or road tyres

INTERIOR: OMP fixed back bucket seats, OMP steering wheel, Stack dash, M3 DTM gearknob and footrest

EXTERIOR: Alpine White paint, E30 M3 Evo spoiler and splitter, Warsteiner livery

THANKS: Josh Gardner & Gav Jones at Galvsport.com, Gavin Fairchild at GT-graphics.com.au, Brett Airey at ExecutiveTowing.com.au, Jim Black at Performancefriction.com.au and Barry Dixon at Compomotive.com



BMW

Sytner Leicester



The Ultimate Driving Machine

WE'RE ON THE HUNT FOR CERTAIN BMW MODELS.

At Sytner Leicester we're on the look out to purchase the following BMW models:

• 1M • M1 • E30/E36/E46 M3 • M3 CSL • E39/E60 M5 • M6 • 330ci Clubsport • Z1 • Z3M and Z4M Coupe/Roadster • Z8 • All ALPINA models • Any individual paint/leather/specification models

If you own one of the above and are interested in selling or part exchanging then for a valuation please call:

Greg Smith on 07973 841399 or our Group Buyer Richard Gant on 07887 906622

Sytner Leicester

Meridian East, Meridian Business Park, Leicester LE19 1UY
0116 282 7700 www.sytnerleicesterbmw.co.uk



CA TECHNOLOGIES INTERNATIONAL LTD

COMPLETE VEHICLE PERFORMANCE AND VISUAL ENHANCEMENTS

TEL: +44 (0) 1202 822 792
WWW.CA-INT.CO.UK

EMAIL: ENQUIRIES@CA-INT.CO.UK
WWW.EISENMANN.CO.UK



F Car ECU Mapping & Powerboxes



Apex Lightweight Wheels

SUPPLYING PREMIUM QUALITY CUTTING EDGE BMW UPGRADES SINCE 1994

- PREMIUM & EXCLUSIVE UPGRADES FOR ENGINE, CHASSIS & AERODYNAMICS (from Mild to Wild)
- SUPERCHARGING SPECIALISTS
- PREMIUM PRE - PREG AND DRY LAMINATED CARBON FIBRE PRODUCTS
- CA PROJECTS ARE REGULARLY FEATURED IN THE PRESS & TV
- WE SHIP WORLDWIDE. MINIMUM 20% DISCOUNT ON ALL EXPORT ORDERS



15 - 20% discount on most



exhausts for a limited period



MBOARD.com



UK BMW M3 Forum
As seen in Performance BMW

The *Thirty* Somethings

We sample three of the best before the Bangle era, all sporting the M62 V8 engine and all decked out in silver

Words: Johann Venter Photography: Oliver Hirtenfelder



As we arrive at Air Force Base Zwartkop the sun rises over the horizon and snapper Oli springs into action as it creates the perfect backdrop for this 30-something trio comprising an E31 840Ci, E38 740i and E39 540i. Oli wants to record this moment for posterity: three Bavarian stealth cruisers parked on an airbase runway – who can blame him?

They say with age comes wisdom but what they don't let you in on is the sentimentality that goes with it – melancholy if you will, especially when it comes to older BMWs. Growing up as a boy I always revered the BMW marque. I had come to admire the

Hofmeister kink, the ubiquitous quad headlamps and the shark-nosed front end. On the inside: a driver-centric cockpit with an orange glow emanating from the instrument binnacle when the lights were turned on. And within that binnacle had to be the four standard gauges. At the time this was best served up with an in-line six-cylinder. Later on I came to appreciate the four-pot to be found in the 2002 and elsewhere, which in fact was more significant, even helping Brabham to secure an F1 driver's title in 1983. The trio we see here today more or less still represent that impression of what a BMW should be. Thankfully all three are devoid of the Bangle influence

including that of sidekick Adrian van Hooydonk; Bangle will however go down in infamy in the motoring world. Despise or secretly admire him there is no getting away from his audacious bravado. Now that Bangle is out of the way let's focus on the V8 engine.

In an austere environment after the Second World War BMW decided to develop its first V8 engine to replace the underpowered 2.0-litre straight-six that was found in the 501. The timing was wrong and underpinnings on which the 1954 502 was based, dawned from the 326 which was itself quite dated. Nevertheless the all-alloy 90-degree V8 overhead



valve engine was the first and the last pushrod-driven motor produced by BMW, pushing out 100hp. The V8 did service in the 502, 503, 507 and, finally, in the elegant 3200CS which was designed by Nuccio Bertone, production of which ended in 1965 by which time it developed 160hp. It was the last V8 to be used by BMW until the dawn of the E32 7 Series, when the M60 V8 engine was fitted to the 730i and 740i in 1992 – BMW's first V8 in 27 years. In 1994 it would be fitted to the E31 and offered as the 840Ci to boost dwindling sales figures, too.

When introduced in 1992 the M60 V8 engine was revolutionary for its time instituting advanced engine

technology which included, four-valves per cylinder, quad overhead cams and coil-over-plug ignition making the need for a distributor and HT leads obsolete. The powerplant also included a dual-row timing chain, valve actuation via self-adjusting hydraulic valve tappets and a Bosch Motronic 3.3 ECU was fitted regulating the fuel injection and ignition. Other new innovations included double-walled exhaust manifolds and cylinder walls that were hardened using a Nikasil (an aluminium, nickel, and silicon alloy) process instead of using the traditional liner. And herein lay the Achilles' heel of the M60 engine – the Nikasil unfortunately reacted disastrously

with fuel with a high sulphur content, which eroded the liners, causing loss of compression and ultimately resulting in engine failure. Engines affected by the problem were mostly changed under warranty and were refitted with new engine blocks. The M60 however produced more power per litre, was more fuel efficient and let off less carbon-emissions. It was offered as a 3.0-litre (M60B30) pushing out 218hp and 214lb ft of torque while the 4.0-litre (M60B40) achieved 286hp and 295lb ft of torque. Both engines were also put to good use in the latter part of the E34's life-span and did service in the 530i and 540i.

With the introduction of the M62 in 1995 Aluil

(aluminium, silicon alloy), rather than Nikasil, was used for the cylinders, pistons were cooled via nozzles, spraying oil directed at the piston crown and along the entire movement. It had a new crankshaft due to the increased stroke made from forged steel with a central hollow-cavity reducing weight. Head covers were made from magnesium with lighter hydraulic tappets and valve springs which lowered frictional torque and reduced noise. Significantly the M62 resorted to a single timing chain with plastic chain guides, which proved to be less robust.

The M62 was offered as a 3.5-litre (M62B35) producing 236hp and 236lb ft and a 4.4-litre (M62B44) pushing out 286hp and 310lb ft of torque. The 3.5-litre did service in the E38 735i/L and the E39 535i, while the latter was found in the E31 840Ci, E38 740i/L and E39 540i.

The M62B44 was further enhanced and designated as the M62TUB44 in 1998 taking a major leap forward with the introduction of Vanos. Simply put, Vanos is a variable valve timing system which varies the timing between inlet and exhaust valves by moving the position of the camshafts in relation to the drive gear. This was a single-stage Vanos on each cylinder bank. Further enhancements included electronic throttle control (EML) whereby throttle

response was altered depending on driving mode/style thus varying the opening of the throttle butterfly according to speed and accelerator input. The single flaw that was derived by the Vanos system was the fact that the engine was fitted with a more restrictive manifold design.

The M62TUB44 was the epitome of the V8 engine in the BMW line-up. It had loads of low-down torque (with a flatter curve), was more fuel efficient and produced much lower emissions. It was used in a variety of vehicles which included the: E39 540i, E38 740i/L, E53 X5 4.4i and certain Land Rover models. It was even deployed in the Morgan flagship, the Aero 8 as of 2000. Strangely enough it was never offered in BMW's own flagship 8 Series, the 840Ci, which continued to make do with the M62B44 although the M62TUB44 was available from 1998. The M62TUB44 would ultimately form the basis for the development of the S62 which would be used in the E39 M5 and Z8.

Let's then have a closer look at the three Bavarian sleepers we have here all decked-out in silver and all having been assembled at the Dingolfing School of Excellence. Both the 740i and 840Ci belong to longtime BMW stalwart Willy van Son. His infatuation with BMW started in 1969 when his elder brother

imported a 2002 through Club Motors (one of the oldest BMW dealerships in South Africa). Willy even accompanied his brother to the Durban docks so he could be part of the inaugural journey – some 373 miles back to Pretoria. Willy's first foray into ownership led to a dark blue left-hand drive E9 2800CS manual, which was reincarnated when sold, becoming a black Batmobile racer with a tri-colour stripe which is now a regular on the classic race car circuit. This was followed by an E3 3.0-litre as I suppose necessity would have dictated with the onset of a family and, with the progress of time, an E23 733i. In November 2004 Willy acquired this Arctic silver 740i with 134,000 miles on the clock. He's clearly a big fan: "I like big beautiful cars and the E38, in my opinion, is the prettiest 7 Series ever made."

BMW's intention with the launch of the 7 Series in 1994 was unequivocal; it would be a game changer. It set new standards in terms of refinement with the use of durable high-end tactile materials. Build quality in terms of fit and finish was expected to be excellent and the driving experience was enhanced with electronic aids such as Electric Damper Control (EDC) and Self-Levelling Suspension and more refined engines. The 7 Series was a technological marvel with a plethora of electronic gizmos, some inherited from





E38 740i

ENGINE: V8, 32-valve

CAPACITY: 4398cc

MAX POWER: 286hp @ 5700rpm

MAX TORQUE: 310lb ft @ 3900rpm

0-62MPH: 7.1 seconds

TOP SPEED: 155mph (limited)

PRICE WHEN NEW: £50,570 (1998)



the 8 Series. It not only set a new benchmark for BMW but for the entire motor industry; those in Stuttgart in the meantime must have been losing sleep over it.

Willy's car was built in August 1997 and therefore it has the 4.4-litre V8 (M62B44) but without the Vanos. It was registered in South Africa in 1998 and is serviced by Willy's independent BMW specialist. Although it is not the Sport model introduced in 1998 it does feature the 18-inch M Parallel (Style 37) wheels which suit this suave executive limousine. According to the build-sheet this car did not come with many options/extras but then it didn't have to as the standard equipment list was very comprehensive. Willy's example does, however, come with double-glazing and rear-curtain but that is to be expected for the hot South African climate.

Willy has also recently acquired this 1999 Titan silver 840Ci Sport which was initially registered in the UK after making it off the production-line in November 1998 and then found its way to the idyllic shores of Cape Town a few years later. Willy laid claim to it in April 2014 with 118,000 miles on the clock and his reasoning was thus: "I thought the Seven and the Eight would make the perfect pair. Silver siblings with shared DNA!"

The arrival of the 840Ci in 1994 gave the 8 Series, which had been launched in 1989 as the 850i, a much needed boost as sales of the 850 were somewhat stagnant at the time, and not even the launch of the 850CSi in 1992 could spike sales. The 840Ci purchase price was substantially less compared to the 850Ci. It was also more economical in terms of fuel spend and running costs. The V8 engine (M60B40) felt far livelier and drivable as it revved much higher than its 850Ci counterpart and in truth was not that much slower than the V12.

To further increase the life-span of the 8 Series the 840Ci Sport was introduced in 1997. It borrowed the aero-kit from the 850CSi, which included a lower front bumper with integrated splitter and lower rear bumper with integrated diffuser and quad exhausts, coupled with E36 M3-style door mirrors. The package also included a sports suspension with a firmer ride and improved handling dynamics. Power was derived from the new 4.4-litre V8 (M62B44) which was more dynamic and powerful, making for a rather appealing all-round package.

Staring at Willy's Eight on the runway with all the windows down and with the absence of a B-pillar it becomes apparent just how achingly beautiful this car is. The flared wheel arches filled with the 18-inch M

Parallel wheels and the grille hinting at the 1972 Turbo Concept car just adds to the drama. It truly is epic and has to be seen in the metal to be truly appreciated. And don't get me started on those über-cool pop-up headlights.

You'll forgive my enthusiasm but the E39 540i Sport six-speed manual in Titan silver belongs to me. It rolled off the production-line in September 2002 and was registered in South Africa on the 6 March 2003 by its first owner, BMW SA, and was initially serviced at the BMW Rosslyn plant. It is my understanding that only six manuals reached our shores from the time the Sport was offered in 1999 and that my car is the only manual for 2003. I acquired it in January 2012 with 111,846 miles on the clock after looking for a replacement for my E46 325Ci for the better part of a year. This is my daily-driver although fortunately I don't need to drive it every day as I have an office at home. I am the fourth owner and was surprised to find the Five in incredibly good nick. Having said that the trio featured here today were aimed at the upper echelons of the market and are definitely not meant to be maintained on a shoestring budget. In the three years that I have owned the Five I have very nearly spent the same amount that I paid for it, trying to keep it as true to



the original in every sense.

There is no doubt that the E39 5 Series launched in 1995 is a direct descendant of the 7 Series. BMW had done such an astounding job with the Seven that it made sense to replicate it through the range. The 5 Series is therefore a scaled-down version of the Seven and nowhere more so than on the inside – it's as if BMW waved a magic wand and shrunk the interior to fit inside the Five. The same was effectively done with the E46 3 Series. Many, therefore, considered the third generation E38 7 Series, the fourth generation E39 5 Series and the fourth generation E46 3 Series to be the best of their generation and for good reason: these cars were built with quality, durability and drivability at their heart. The immediate generations that followed definitely lacked the build-quality and even some of the key attributes such as the driver-centric cockpit. These newer models also over-exploited the use of modern electronic driving aids resulting in a desensitised driving experience.

My 540i has the usual M trimmings that the Sport came with: on the exterior there's the M aero-kit, rear diffuser with a single exhaust the size of a drainpipe, Shadowline high-gloss window surrounds and light-weight alloy 17-inch M Parallel (Style 66) wheels. On the inside you'll find sill kick-plates, the steering wheel and gear lever carry the M badge and Sports seats provide the necessary lumbar support. The cabin is nicely finished off with anthracite roof-lining, all of which is in sharp contrast to the wood grain inlays. This car is fitted with the 4.4-litre V8 engine (M62TUB44) with the single stage Vanos and features the M Sport Suspension II (S705A). It is therefore equipped with the same shocks, springs and rear stabiliser bar as found on the E39 M5. Furthermore, the six-speed manual Getrag 'box is the same unit deployed in the M5.

The question remains, though: what are they like to drive? First up is the 7 Series. Once seated I turn the key. I can hardly hear the engine, there is just a slight hum, as it should be. After all, these cars were

intended for captains of industry, statesmen, dignitaries and superstars. Engage the 'box into Drive, accelerate and... nothing. It takes the gear a monumental time to engage. Pull-away, however, is smooth and plush. The ride is typical BMW firm but not harsh – it does not wallow. Lane changes are easy, as are slow winding 'S' bends although one cannot call the steering sharp. Hairpins and 180-degree turns are a different story altogether. You can feel the massive weight succumb to the laws of gravity and somehow you cannot turn the steering fast enough to make the turn while you seem to lose the back end. On the open road, though, the V8 does what it does best: it gets you up to cruising speed without breaking a sweat leaving you with plenty in reserve to deal with any undulation or some low flying when the need arises. These cockpits are made to withstand a nuclear disaster and this particular one is in fine fettle. Wind noise is, however, starting to permeate through the double-glazing, although after 200,000 miles that is about the only fault.





E31 840Ci Sport

| |
|---------------------------------------|
| ENGINE: V8, 32-valve |
| CAPACITY: 4398cc |
| MAX POWER: 286hp @ 5700rpm |
| MAX TORQUE: 310lb ft @ 3900rpm |
| 0-62MPH: 7.0 seconds |
| TOP SPEED: 155mph (limited) |
| PRICE WHEN NEW: £57,470 (1999) |

These three steeds are like time capsules as we will never return to normally aspirated V8s



Next is the sleek 8 Series. It was so sleek for its time (1989), in fact, that it was the most aerodynamic machine in its class with a drag coefficient of 0.29. The Eight truly gives you that sense of occasion. Open the door and you are greeted by an opulent cockpit swathed in leather. Step inside and feel that Sports seat wrap around you offering support in all the right places while the electronic adjustments let you find the perfect driving position. The driver is enveloped in this cockpit with all controls at arm's length; it really does feel like a special place to be. Turn the key and there is no mistaking that you have a V8 in front of you. It sounds more like a muscle car than a Bavarian thoroughbred; the bass bellowing from the pipes does sound good though. Engage the Steptronic into Sport, accelerate, again a slight hesitation – not as long as in the Seven but still present. Today we have become accustomed to very sophisticated eight-speed 'boxes from BMW that are ultra-efficient, free of noise and without any sensation when a cog has been swapped. The Eight is 16 years old so I can hardly expect that eight-speed perfection here but this auto 'box is not great in traffic or when you're pushing hard between traffic lights. The Sports

suspension is quite firm and much better set up than the Seven to deal with slithering mountain passes. This is not a bad car, in fact it's great but the reality is that the Eight is a GT cruiser that was developed to cross continents in style, comfort and ease – as long as you are seated in the front row and not in the shopping bag placement area in the rear.

So how does the Five stack up to its brethren? I recently was coerced into having a decat performed on the Five, prior to this the exhaust had a rather muted note and could only be heard towards the redline. Now there is a mechanical snarl even at lower revs that builds into a metallic growl as one starts to explore the higher end of the rev range.

Inside and behind the wheel the Five is still a fantastic place to be. It has aged well, is rock solid and the cabin still gives off an air of opulence. I do, however, prefer the Sports seats of the Seven over my own, although the seats in the 540i Sport are a definite improvement over the standard seats found in the 5 Series. Once on the road the Five definitely feels and handles like a smaller BMW – reminiscent of my E46 325Ci. Yes, the steering configuration is not as sharp as that of its smaller siblings that feature the rack and pinion setup and the gear throws might

be a tad too long. The 540i Sport, however, shares enough genetics with the M5 to give it a very dynamic ride with plenty of torque which makes it very drivable throughout the entire rev range and loads of fun. Put your foot on the accelerator and it responds immediately... there is no hesitation whatsoever; shove the accelerator into the horizontal position and the Five starts to pull like a freight train.

There is so much torque that under normal driving conditions I change from third to sixth, sounds crazy but that means on a combined driving cycle I get a minimum of 375 miles from the 70-litre tank. Once going to the South Coast on holiday I managed to get nigh on 500 miles on one tank, averaging the national speed limit of 75mph – extraordinary. But for me the biggest party trick that the Five has in its arsenal is the ability at 3000rpm to reach a cruising speed of 100mph while returning almost 35mpg.

Is there a winner among the trio though? For me each car is a winner in its own right. They represent a place in history where BMW was at its absolute best, before it had its eye on world domination. These three steeds are like time capsules as we will never return to normally aspirated V8s or gearboxes that actually require some hand-to-eye coordination.



BMW continued to develop the V8, the most successful of which is to be found in the fourth gen E92 M3, the S65 normally aspirated unit which won five 'Engine of the Year' titles in succession from 2008 to 2012. The V8 is still found in much of the range in the bigger Saloons, Coupés and X vehicles (albeit with the use of twin-turbo technology), the most powerful being the S63TU found in the current M5 and M6 pushing out 560hp and 502lb ft.

As I write this feature Brent Crude has fallen to below \$50 a barrel, the lowest it has been since 2009 and BMW chairman Norbert Reithofer is adamant that the V8 will continue to do duty in the next generation of big Saloons and Coupés. So if you have missed the opportunity to own a glorious BMW V8 there is hope. Long live the V8! ●

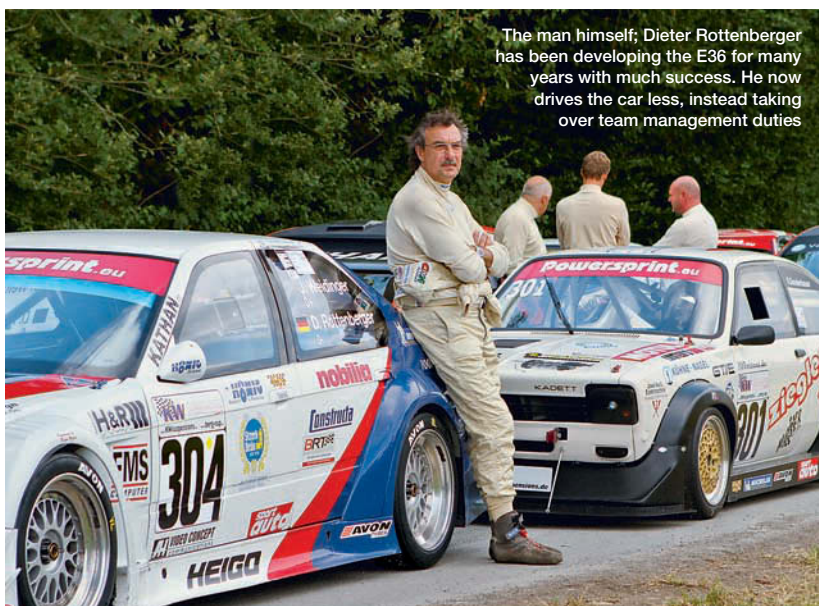
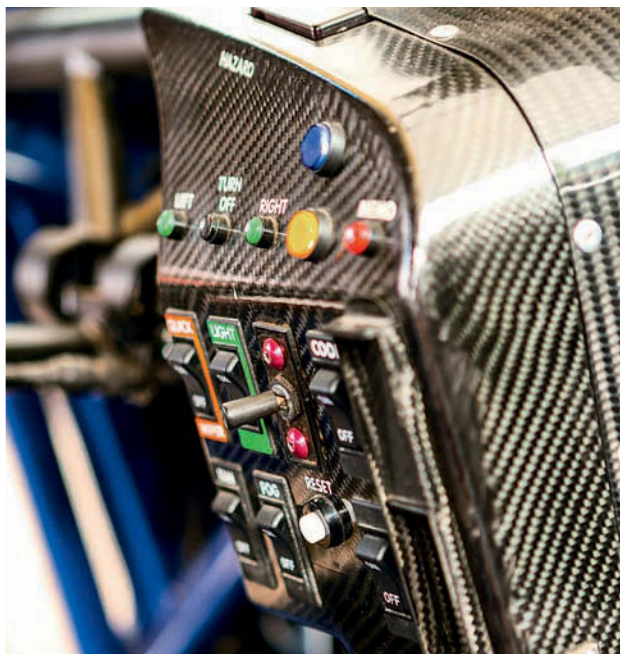
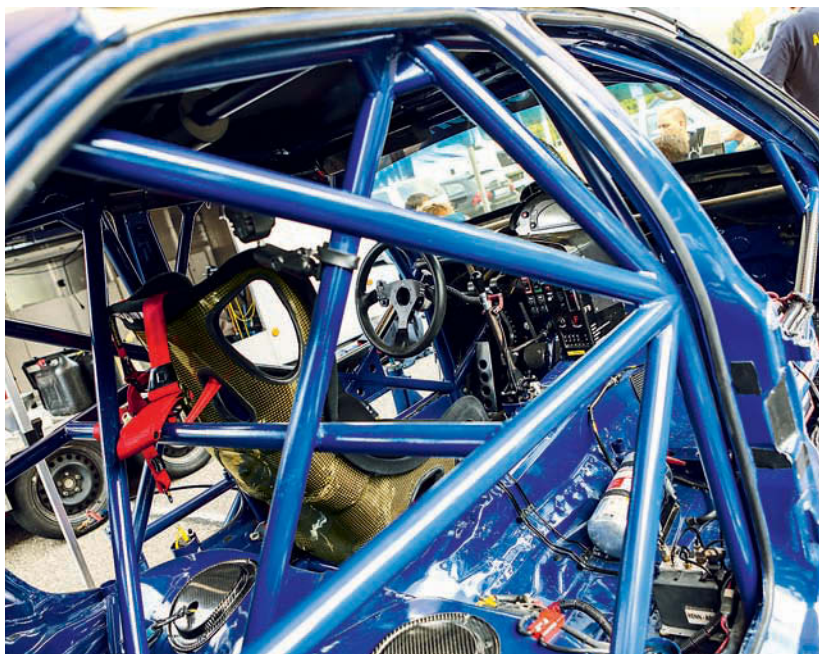
KING OF THE HILL

Berg Cup fields are made up of some formidable machines, though few are as extreme as Dieter Rottenberger's E36!

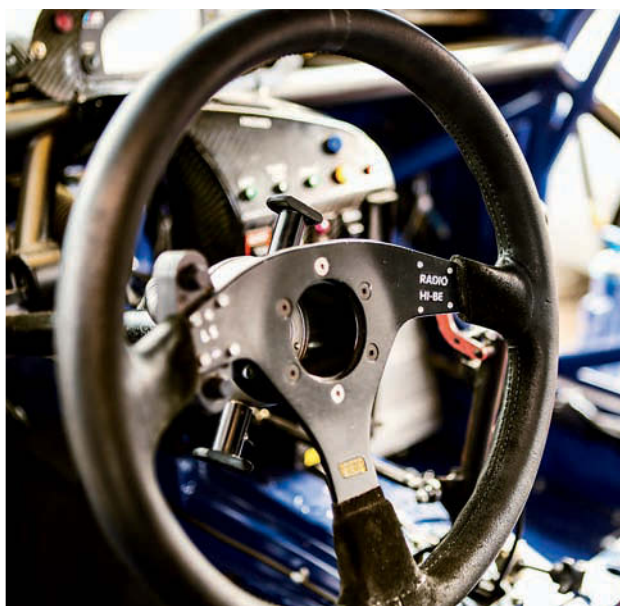
Words: Jamie Arkle
Photography: Axel Weichert







The man himself, Dieter Rottenberger has been developing the E36 for many years with much success. He now drives the car less, instead taking over team management duties



It's hard to overstate just how seriously the Germans take their hillclimb championships, though perhaps one way of putting it into perspective is by taking a close look at the fields of cars that take part. Certainly they're varied, with numerous classes and categories catering to near enough every drivetrain, power band and budget. At the upper echelons of the classes you'll find some incredible machines, full-fat thoroughbreds that were once campaigned in premier race series like the DTM, the BTCC and, in the case of the BMW E36 you see here, the German Super Tourenwagen Cup championship (STW). It all makes the UK's short, idyllic courses seem a little clubman in comparison, and dare we say it, slightly quaint.

This E36 is a perfect example of the passion our German friends take dashing up massively steep mountain passes, and its long time owner has an appropriately well-appointed motorsport CV. Dieter Rottenberger might now spend his time managing the team he's built around this very car, but he cut his teeth racing Fiats, Simcas, Hondas and BMW E30s

throughout the '80s and '90s. The latter certainly left a lasting impression, with Dieter becoming something of a Munich devotee in the years since. It was also in one of these cars that he achieved his greatest success of his formative motorsport years, scooping overall honours in the 1992 German Hillclimb Championship, on a very modest budget. After that, real life conspired to get in the way of racing, with Dieter instead devoting his energies to raising a family and growing a successful business, and it was only in 2003 that he again began to consider a foray into hill climbing once again.

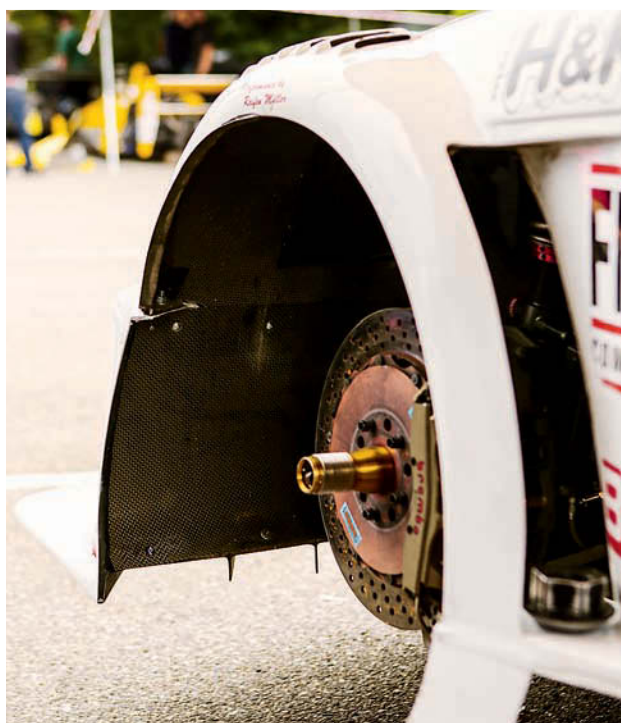
"It seemed like the right time to get back into it again, but I wanted to test the water before diving in and doing a full season at the top level. I bought a cheap Honda Integra to tackle my local circuit and ended up coming away with the class victory," explains Dieter.

That taste of success opened the floodgates, and it wasn't long before Dieter was making plans to buy something a bit better suited to the upper echelons of the German hillclimb world, with both the KW Berg

Cup and DMSB championships firmly in his sights. The upper tiers of both of these series are full with refugees from all manner of tin-top championships, and Dieter knew he wanted something similar to form the basis of his own challenger. A suitable car was eventually located in Sweden, a former STW racer, complete with a 2.0 four-pot, sequential 'box, and a stack of race wins to its name.

"We tracked the car down in 2006, but though it was ideal for a base, we always knew we would have to invest a lot of time and money to make it suitable for modern hillclimbing," recalls Dieter.

The newly acquired racer was put on a crash diet by Dieter's team of mechanics, Florian and Christian. Granted, the car was hardly what you'd call heavy to begin with, but there was still plenty of excess to be trimmed from the chassis, with Berg Cup regulations allowing extensive use of composite body panels. There was also the fact that the vast majority of cars Dieter would be up against in the combined H/E1 Group were true featherweights in comparison, and there was simply no way the E36 would be able to



compete on an even footing without losing some weight. Despite this, the thought of actually taking an angle grinder to several thousand Euros worth of Munich's finest was nothing if not galling – a true 'point of no return' moment: "We spent the whole winter chopping the car around, adding as much extra strength into the shell as possible, but without adding unnecessary weight. It was all a bit of a balancing act, but it came together quite well in the end."

The car was ready for its first run at the tail end of 2008 and was immediately on the pace of its closest competitors, with Dieter even managing to net a brace of podiums before the end of the season. This meant that the team had every reason to look forward to the start of the 2009 season, their first full year using the car. Sadly things didn't go quite to plan, with Dieter having a monumental crash at the first event of the season, leaving the road entirely and ending up down a grass embankment.

"The car was very close to being written off at that moment, and we knew straight away that we would have to do a huge amount of work if it was ever to

see the track again," Dieter recalls with a grimace.

There was one upside though; the need to rebuild also represented the perfect opportunity to further develop the car, starting with its chassis. The buckled shell was placed on a jig and artfully walloped back into some kind of shape, then it was given an acid dip, removing weight and what little evidence of rust there actually was. This done, it was time to start rebuilding the bodywork, with the team sourcing a carbon fibre Floßmann Car Design kit to act as a base, a far more aggressive and outlandish aero package than the car would ever have been permitted to run in its Super Touring guise. The vast majority of panels have now been replaced with carbon fibre items, with the bumpers, bonnet, bootlid, doors, wings, side skirts, mirrors, undertray and rear diffuser all having been replicated in the lightweight composite. The team eventually managed to shed 200kg of excess, but that still left the 845kg E36 one of the heaviest cars in its 2.0-litre class.

"Obviously aerodynamic grip is really important in mountain racing and we knew we'd need to develop

a fairly extreme package in order to be competitive. The wings and kit on the car now are the result of several years of development, trial and error – it certainly didn't start out looking like this," laughs Dieter.

Even when the team got hold of the Floßmann bodykit the battle wasn't over – they still had to make it fit, not exactly a simple proposition when you learn that it'd been designed with an E36 Coupé in mind! Suffice it to say the team spent many long nights measuring, cutting and mounting the kit, and getting it to sit correctly on the car took a good month of effort.

The comparatively 'free and easy' rules of the Berg Cup meant that Dieter and his team were permitted to widen the E36's track by a considerable amount, with those mammoth arches now home to 10x17-inch BBS split-rims, wrapped in super-soft compound Avon slicks. It all adds up to a potent package, and a car that's certainly not short of mechanical grip.

It goes without saying that the output of the S42 engine between the front wings was strictly governed when it raced in the STW, with a figure of 285hp most commonly quoted. Dieter and his team opted

E36 Berg Cup STW

BASED ON: E36 Saloon 318i Super Tourenwagen Cup

YEAR: 1994

ENGINE: S42 four-cylinder, normally aspirated

CAPACITY: 1999cc

MAX POWER: 305hp

MAX TORQUE: 199lb ft

MODIFICATIONS

ENGINE: Naturally aspirated BMW Motorsport S42 2.0 DOHC 16v, 86.5x85mm bore x stroke, 12:1 Compression ratio, Super Touring specification carbon inlet, individual throttle bodies, eight injectors, STW spec exhaust manifolds, straight through stainless steel system, forged pistons, steel rods, lightened and balanced crank, dry sump system, BMW Motorsport specification camshafts, BMW Motorsport 4A ECU

GEARBOX: Holinger six-speed gearbox, one piece propshaft, Drexler Motorsport LSD

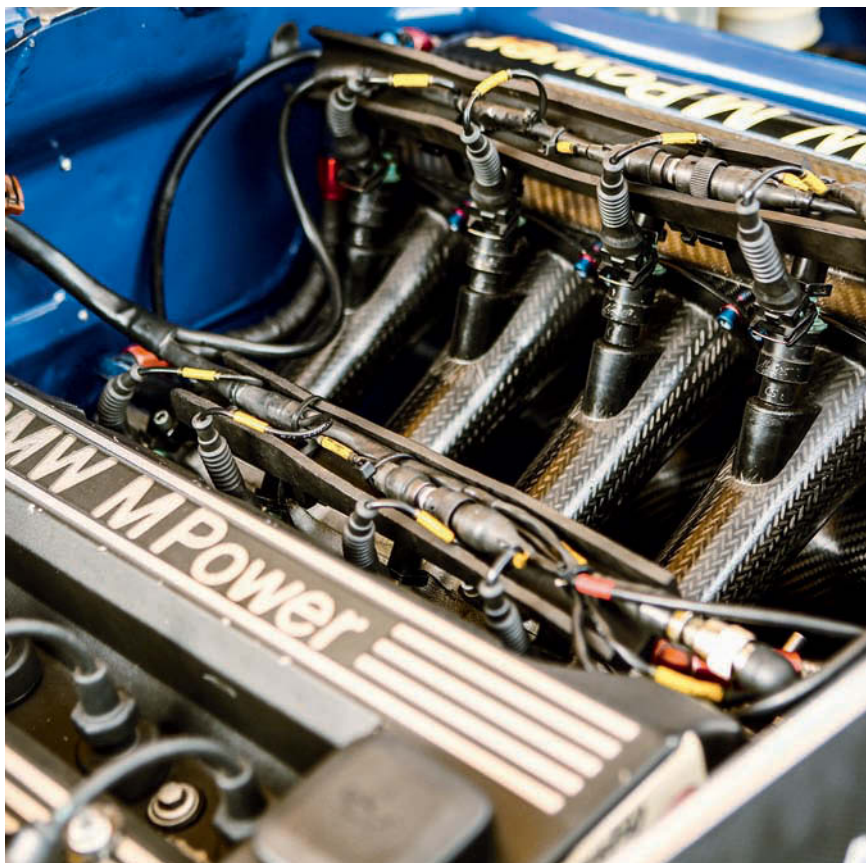
CHASSIS: Sachs Race Engineering four-way adjustable dampers, custom poundage H&R springs, rose-jointed front end, BMW Motorsport anti-roll bars, bushes and mounts

BRAKES: BMW Motorsport drilled discs, Brembo six-piston front callipers and twin-piston rear callipers, braided lines, floor-mounted pedal box

WHEELS & TYRES: Centrelock 10x17-inch BBS Motorsport split-rims, Avon race slicks in various compounds

EXTERIOR: 1994 BMW Motorsport E36 four-door with modified carbon fibre Floßmann Auto Design bodykit, carbon fibre canards, bonnet scoops, bootlid, doors, wings, skirts, mirrors, flat floor, diffuser, splitter and rear wing, plexi-glass windows, various sponsor decals, single wiper

INTERIOR: Multi-point weld in roll-cage, carbon-Kevlar bucket seat, carbon fibre dash and centre console, data logging system, remote engine and fuel system shut-offs, plumbed-in fire suppression system



to use the period that the car was off the road (in the most literal of senses) to further develop the powerplant, starting by removing the FIA-spec restrictors and tweaking the engine management. These small changes produced fantastic gains, with a subsequent dyno session revealing the four-cylinder to be making 305hp and 270Nm.

"The engine runs a mixture of 1995 and 1998 spec, so there's still room for more power should we feel the need," he reveals. "The BMW Motorsport 4A ECU is great, really adaptable and still up to the task almost 20 years after it was first wired in."

That grunt is sent through a Holinger six-speed sequential gearbox, one-piece prop and Drexler Motorsport limited-slip differential, the exact same setup the car ran back in the '90s. There's a lot to be said for capitalising on what's already there, especially as, in the case of this E36, a manufacturer's spent countless thousands developing the drivetrain. It's also a setup that's proved more than up to the task of reliably ladling out power to the rear wheels.

The chassis hasn't escaped the team's attention,

with both the suspension and brakes tweaked and honed during the period the car was off the road. "The demands of hillclimbing are pretty unique, and it places stresses on specific areas of the chassis, especially the suspension. After the accident we spent time strengthening and bracing the mounts and lower arms for this reason."

The suspension setup is also a lot softer than the one the car would've run in its Super Touring heyday, mainly as the twisting mountain passes it now competes on are rarely as smooth as the European circuits it was originally designed to tackle. Custom poundage H&R springs work with four-way adjustable Sachs dampers and top mounts, so tweaking the setup to suit the specific demands of each event is a relatively simple affair.

The rebuilt and re-engineered car emerged towards the end of the 2010 series, and though it took a little while for Dieter to get to grips with it, he was soon on the pace, with a number of podiums netted before the year was out. 2011 brought even more success, with fourth place overall in the KW

Berg Cup Division II. 2012 saw Dieter handing some driving duties over to Jörg Weidinger, a close friend with a long history of successfully racing BMWs, a decision that allowed Dieter to concentrate on running the team. There was also yet another development session for the car itself, with more weight being removed, the aerodynamics tweaked once again, and the brake system given an overhaul.

"It still runs the same six-pot Brembo callipers at the front, but we've switched to thinner, lighter discs. The rears are much smaller though, mainly as there isn't as much need for hard braking when racing uphill," explains Dieter.

2013 proved to be the most successful year yet for Dieter and Jörg, with the latter finally mastering the E36 and utterly dominating his class, ending up on the podium for ten of the 12 rounds and eventually emerging as overall champion – then wasting no time in comprehensively defending it the following year! Jörg is actually a multiple champion at the moment, having scooped victory in the EBM, the DBM and the KW Berg Cup – the triple crown,

“It was all a bit of a balancing act,
but it came together quite well in the end”



if you will, of German hill climbing.

The fact that Dieter and his small team have been able to transform a dedicated circuit racer into an ultra successful Berg Cup weapon is deeply impressive, as the two disciplines are totally different. About the only thing the two have in common is that they take place on a sealed surface, so getting the comparatively bulky Super Tourer to compete against the myriad of lightweight hillclimb specials has taken a huge amount of work and engineering nous. That effort is clear in all aspects of the finished car, from the perfectly finished engine bay, to the fantastically reworked aero package, and it really is one of those rare examples of a full-fat race car that also stands up to close scrutiny of its aesthetics.

Like all the best racers though, it's a continually evolving beast, and with the 2015 Berg Cup regulations permitting yet another drop in weight, the battle is on to try and skim yet more bulk from the car, probably with a carbon fibre roof and rear three quarters. You can bet the team will add more silverware to their cabinet this year! ●

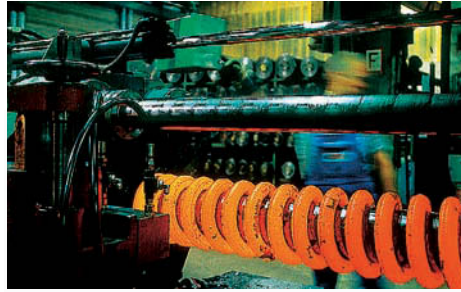


What's involved? E90 springs and dampers

When the time comes to replace the standard suspension on your E90 3 Series
it's perhaps worth taking the opportunity to consider the other options...

Words: Simon Holmes





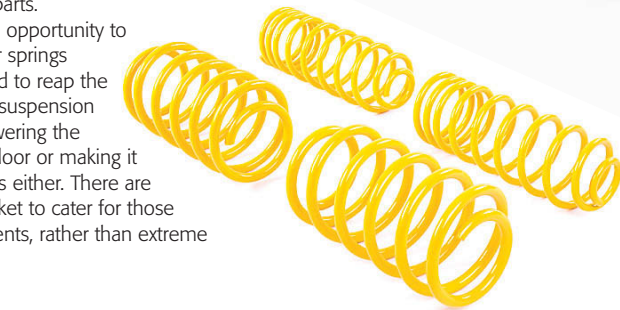
The last generation of 3 Series is now getting to the age when key components such as the springs and dampers are nearing the end of their lifespan. These are items that inevitably become worn over time and due to the age of the car it's often the first time they will need replacing. But you don't have to replace them with standard parts.

It's often worth seizing the opportunity to upgrade the dampers and/or springs whilst they are being replaced to reap the numerous benefits. Up-rated suspension doesn't necessarily mean lowering the car until it's scraping on the floor or making it so stiff it will rattle your fillings either. There are plenty of options on the market to cater for those looking for subtle improvements, rather than extreme ones, as we'll explore here...

How do I know if something needs replacing?

When it comes to dampers and springs the telltale signs that something is either worn or broken range from the obvious to subtle. Dampers and springs tend to deteriorate over time so it can be hard to gauge how bad things are as changes will have been gradual. Be realistic, though, the signs should be there.

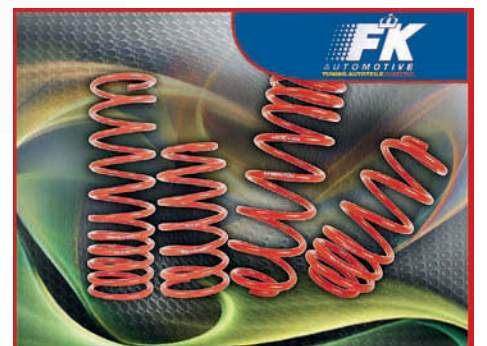
If the car is notably slower to recover from dips in the road, steering response and turn-in feels delayed or it just feels tired overall then something isn't right. Listen out for the knocking noises over small bumps or much harsher crashing sounds over speed bumps, a sign the dampers are bottoming out and well worn. The good old test of bouncing a corner of the car with your hands to see how fast it recovers is a little outdated now as suspension is much stiffer but visually check for obvious signs such as dampers leaking oil when they fail (check to see if anything is wet behind the wheels for this). Also check the ride height is even all-round, as springs will sag when they become worn. It's common for springs to snap and this isn't as easy to detect as you may think. Worn suspension can also affect braking, create vibrations through the steering wheel or cause changes in the way the car handles by making it feel unsteady or unpredictable. A lot of these symptoms could be down to items like bushes, so if you're not sure, ask a garage to diagnose the problem and remember your MoT tester should identify the problem if you can't.



How long should dampers and springs last?

This can be a hard question to answer, as there are variables to consider. For example, a car that has done 100,000 miles and lived its life on a smooth motorway will generally have dampers in far better condition than a car with 40,000 miles that has been driven over potholes and speed bumps everyday. Similarly, cars that regularly carry or tow big loads will wear through suspension components faster than those that seldom carry extra weight.

As a guide, you should be aware that dampers are usually past their prime around the 60,000-70,000-mile mark. It's at this point you should be taking more notice of odd noises or strange handling tendencies. It is not recommended to religiously replace springs or dampers at a set mileage unless you know for sure they are worn, as it's also possible the car has had already had replacements in its lifetime.



BM Auto SportOfficial  **QUANTUM44 Distributor****QUANTUM 44 | S1**18x8 18x9 DEEP CONCAVE
19x8.5 19x9.5 DEEP CONCAVE
20x8.5 20x10 DEEP CONCAVE
MATTE GUNMETAL, SILVER/MACHINED LIP
5x112, 5x120**QUANTUM 44 | S2**19x8.5 19x9.5 DEEP CONCAVE
MATTE GUNMETAL, SILVER/MACHINED LIP
5x112, 5x120**QUANTUM 44 | S4**19x9 19x10 DEEP CONCAVE
MATTE SILVER/BRUSHED FACE,
MATTE GUNMETAL, MATTE BRONZE
5x112, 5x120**QUANTUM 44 | TS1**19x9.5 19x10.5
HYPER SILVER, MATTE BRONZE
5x120, 5x114.3**BM Auto Sport**Unit 7G, Southbourne Business Park, Courtlands Road, Eastbourne, East Sussex, BN22 8UY
Telephone: 01323 647222 / E-mail: sales@bmautosport.co.uk / Website: www.bmautosport.co.uk**QUANTUM 44 S5D
COMING SOON**

BEST OF BRITISH 100% UK MADE BRAKES



BRAKE PADS - Choose from grippy Greenstuff for spirited use on lighter hot hatches, Redstuff for fast street on medium weight cars, Yellowstuff for all out grip and track use on lighter cars or Bluestuff for the ultimate street and trackday pad that has set the Impreza and EVO community buzzing. Latest compound is the Orangestuff full race grade pads.



WANT A QUALITY DAILY DRIVER PAD?

Try the new Ultimax 2 premium replacement pad.

- ✓ The world's first and only true ECO friendly pad
- ✓ Great brake feel for everyday driving and
- ✓ A new lower price point

EBC Brakes pads are now made using the Nacap Canada NRS hook retention backing plate system, guaranteed NEVER to debond



THREE SPORT DISC CHOICES

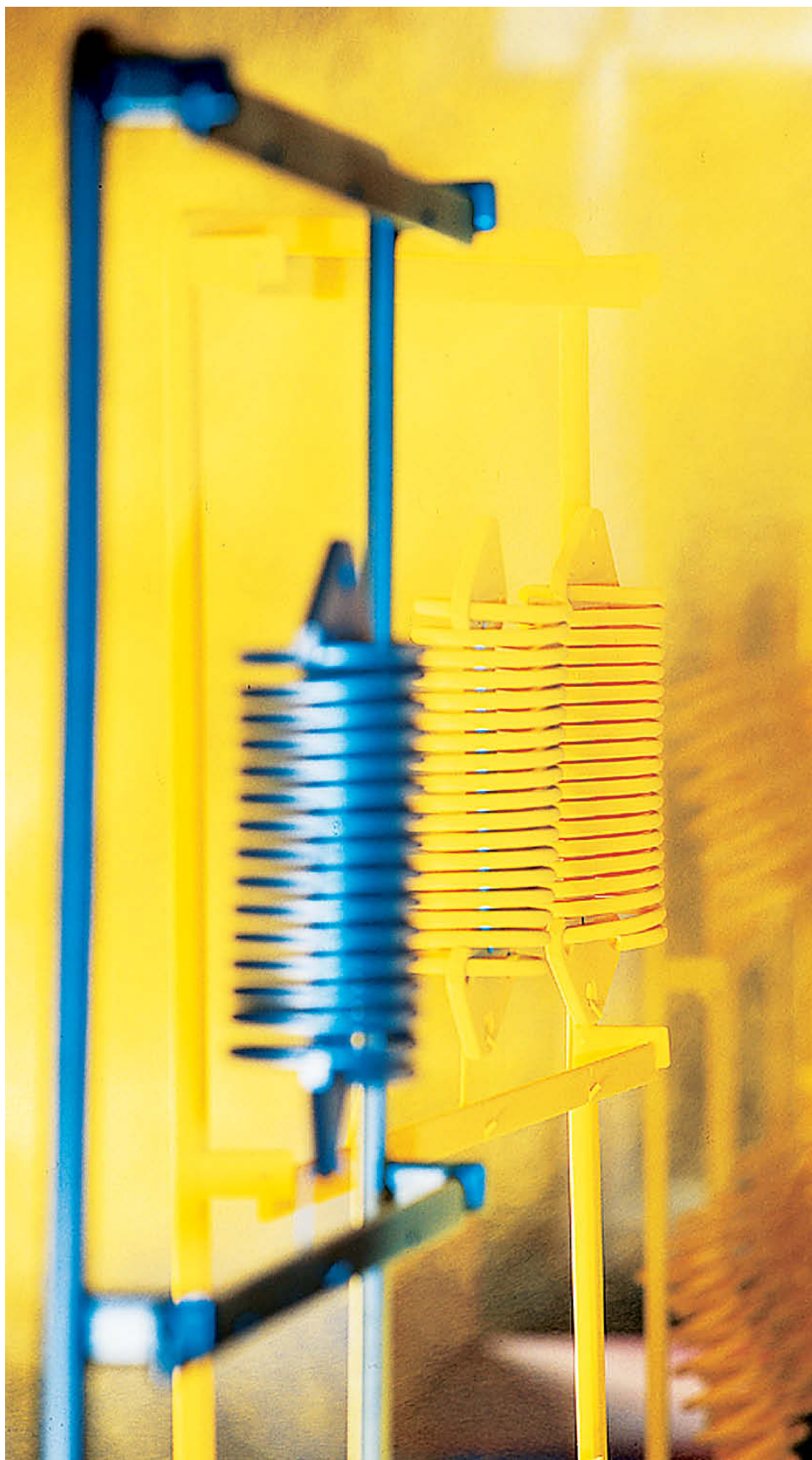
GD series slotted and dimpled (black) for fast street, USR fine slotted (black) or new high carbon BSD series BLADE discs (silver) for fastest street and track day use. For daily driver cars the EBC premium OE replacement discs are a great choice with a superb price point and great value for money.

EBC

BRAKES
www.ebcbrakes.com

Will aftermarket replacements make a big difference?

Virtually all aftermarket springs and dampers are designed to give a stiffer ride and/or lower ride over original items in order to provide more stability, less body roll and improve handling. Just how much difference they make varies from brand to brand but even BMW supply its own slightly stiffer kit with the BMW Performance range. Some brands are deemed more comfortable than others, so it's worth visiting internet forums and speaking to specialists and owners to see which are the most favoured and best suited to your requirements.



WHAT'S INVOLVED



What are the different types?

There are plenty of options on the market and several of the bigger brands offer more than one product to cater for a range of tastes. It starts with replacement spring kits that are a little stiffer and a little shorter. The amount they lower the car should be clearly listed. Unless you particularly want to significantly lower your road car we'd recommend keeping to sensible and minimal drops; below 40mm or so is a good base depending on the application.

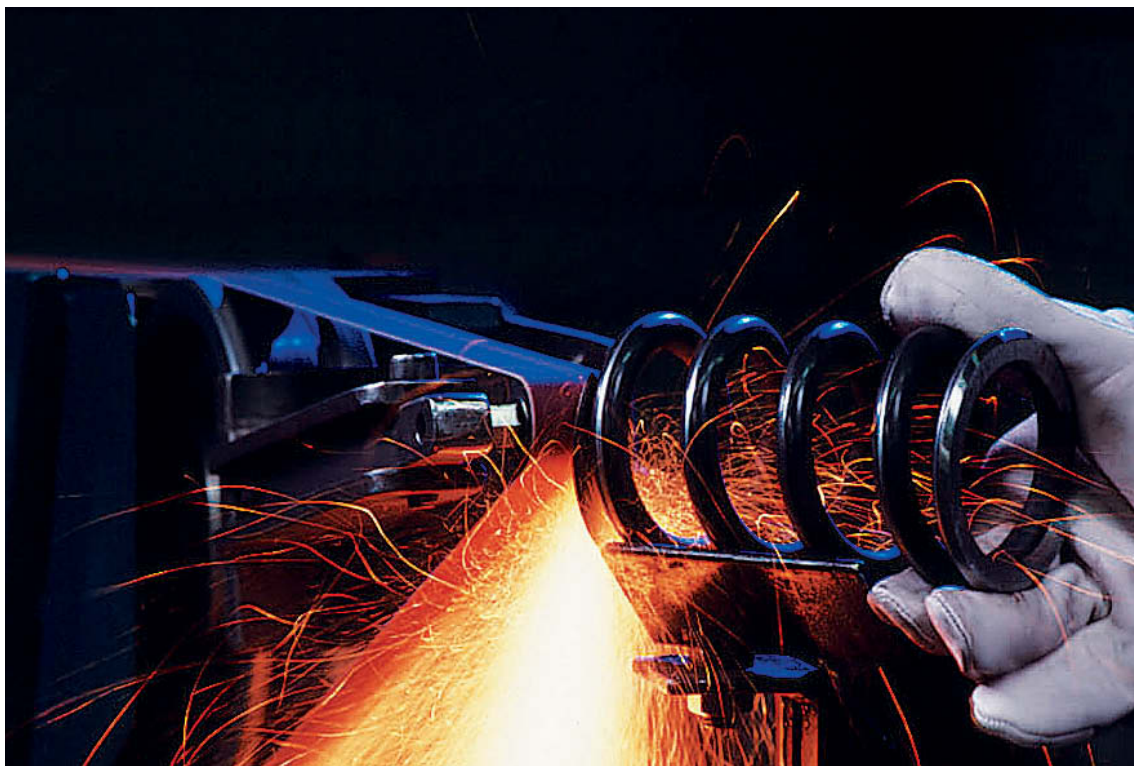
Then there are replacement dampers designed purely for road applications. These will offer a very similar ride to standard but with a slightly sharper feel when pushed. At lower speeds these do tend to be a little harsher than standard but it doesn't take long to get used to and, combined with mild springs, these are the most common upgrade.

Then comes the next level of much stiffer kits to accommodate those looking for more notable improvements or those that venture out on track in their road cars from time to time. Finally come the all-out kits or coilovers designed specifically for track and fast road drivers that require minimum body roll and can deal with much harder settings. The best kind of dampers offer adjustability too, so the damper and even rebound rate can be tailored to suit your taste, or to allow a compromise when on track or road.



What are the costs?

Standard replacement springs for an E90 from BMW start at £90 each and replacement dampers from £120 each for the rears and £220 for the fronts. Pattern parts can be had from £50-60 each for springs and £50-70 for dampers. BMW's own uprated BMW Performance springs and dampers cost around £800 as a package and aftermarket springs range from £110 to £250 a set. A spring and damper kit together ranges from £300 to £1100.



Are they hard to fit?

A competent garage shouldn't take longer than three hours to replace a pair of front dampers and springs, unless there are complications with fittings or seized bolts. If you're attempting it yourself, then the front springs can be replaced without actually removing the dampers from the hubs, which saves time but removing the dampers is a more involved job. At the rear, spring removal does not require the damper to be removed, so again, it saves time and a pair can be replaced in less than two hours easily enough. The rear dampers require parts of the interior and boot trim to be removed in order to gain access to the top of the dampers and this is time-consuming. Expect it take the best part of three hours from start to finish. It's imperative that the car receives a full tracking and alignment setup after any suspension changes.



Quick-fire questions

Do springs and dampers need to be changed at the same time?

Springs don't wear in the same way that dampers do as they do different jobs but it's always worth inspecting both for signs when apart. Dampers should, ideally, be replaced in pairs as, much like tyres, they tend to wear at the same rate so if one is worn then it's likely that the other one is too.

Can I use uprated springs with original dampers?

Technically, yes, they will fit but be aware that they are not designed to work together. Suspension components should be carefully matched and different spring rates or lowered ride heights with standard dampers will not necessarily improve handling. Be aware, it's also likely to wear the dampers out faster.

Should I replace anything else at the same time?

Replacing suspension components is time-consuming so whilst the car is apart a good garage should always inspect the associated parts or at least notice if mounts, bushes or bearings need replacing.

What are coilovers?

Coilovers are a type of height-adjustable, replacement damper that come complete with their own type of narrower spring. They stem from racing applications and are designed solely to improve handling characteristics and performance rather than deliver ride comfort. These will be covered in detail in a future issue.

Contacts:

Brands:

AC Schnitzer
01485 542000
www.ac-schnitzer.co.uk

Bilstein
0116 289 8345
www.bilstein.com

BMW/BMW Performance
www.bmw.co.uk

Eibach
01455 285850
eibach.com

FK Automotive
www.carparts-tuning.co.uk

H&R
www.hrsprings.com

Intrax
en.intraxracing.nl

Koni
01252 543900
www.koni.uk.com

KW
0870 990 7536
www.kwsuspensions.co.uk

Spax
01869 244771
www.spax.co.uk

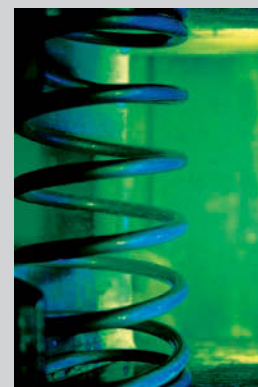
Supersport
01869 244771
www.supersportuk.com

Suppliers:
Birds
01753 657444
www.birdsauto.com

CA Automotive
01202 822792
www.ca-int.co.uk

Evolve
01582 573801
www.evolveautomotive.com

M Style
020 8598 9115
www.mstyle.co.uk

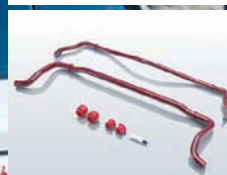




PRO-KIT



SPORTLINE



ANTI-ROLL-KIT



PRO-SPACER



MULTI-PRO-R1



PRO-STREET-S



PRO-ALIGNMENT

DOMINATE THE TRACK. RULE THE STREET.

Performance for Motorsport and Street.

Worldwide race series, teams and drivers trust in Eibach.

Benefit from our experience and race proven technology by fitting Eibach to your car.

Springs. Anti Roll Bars. Wheel Spacers. Suspension Systems. Coilovers. Alignment Kits.

Eibach UK | Phone: 01455 285 851 | e-Mail: sales@eibach.co.uk



eibach.com

WHAT'S IN YOUR GARAGE?

We take the wheel of a BMW 2002 Turbo and talk to its passionate parent about buying the car in Luxembourg

Words & photography: Mike Taylor

The late 1960s and early '70s saw BMW accelerate at full throttle into the niche market as one of Europe's preferred high performance car manufacturers with showrooms full of exciting luxury saloons and eye-catching coupés. A cornerstone to building this reputation was the 2002 Turbo, Europe's first production turbocharged saloon launched in 1973.

Olly Dean, tells us about his passion for these pocket rockets: "I was born in West London," says Olly as we stand admiring his beautiful silver example. "My interest in cars came from my father who at one time owned a Mk1 Lotus Cortina. Although he'd sold it by the time I was born, I grew up in a house surrounded by its legend and his stories like, 'on Saturdays we'd drive into London and go round Fulham roundabout on three wheels'. Every dinner time the conversation gravitated towards cars. I have photographs of my dad and me standing alongside Jim Clark's Lotus at Brands Hatch. This was the hey-day of when you could still walk into the pits without restriction. They all hold special memories for me."

When Olly was about seven years old his father bought an Austin Healey 3000 from Performance Cars based in Chiswick, West London. "It was delivered on the back of a lorry and it took him seven years to restore it, and he did make a wonderful job of it," he recalls. "But, when it was finished my father was slightly disappointed because it wasn't how he remembered Austin Healeys used to be." Olly's father then sold it for £7000 and the following day he bought a new Peugeot 205GTi. "He still has it," grins Olly. "He used to pick me up from school in it."

Olly's dream during his teens was to one day own a black BMW 325i Sport with black leather seats. "I'd see one parked every day on my way to school in Ealing. I just loved the look of it, especially the interior," he recalls wistfully. From school Olly went backpacking around the world. When he returned home his father bought him an Mk1 Ford Fiesta to enable him to pass his driving test. "Then I bought my dad's Astra van, which was followed by various cars including a Caterham Seven. I thoroughly enjoyed it and did a bit of racing. It was every petrolhead's dream. Then I had a BMW M3 followed by a Porsche 997 Carrera, which is a very expensive car to own."

Olly's introduction to the 2002 Turbo came through

reading about them in magazines, mugging up on their history, performance and driving experience. "Then, about 17 years ago, a friend of mine offered me one for £5000," he sighs. "He'd loaned me the car a short while beforehand and people were looking at it as I drove by. I caught a glimpse of myself in a shop window and I thought, 'wow'. Then I thought, 'let's see what this car can really do'. I ended up with three points on my licence."

So what was it that BMW did to the 2002 to create the fire-breathing turbo version? It wasn't its first stab at forced induction as BMW first turbocharged the 2002 when it entered the European Touring Car Challenge in 1969. The programme proved a success. Against Porsche 911s, the cars came good winning the series, a quite formidable achievement in view of the opposition and the speed at which it had developed the engine programme.

BMW then went on to concentrate on its larger saloons and coupés for track events suggesting that interest in the 2002 had been dropped. Not so, for in 1973 it launched the 2002 Turbo at the Frankfurt Show in September with plans to build over 2000 units. Sadly, while BMW had hit the sweet spot by launching a world-beating medium-sized two-door performance saloon its timing was abysmal for soon afterwards the oil crisis loomed large, which dashed sales volumes of sporting and luxury cars. In the event only 1672 BMW 2002 Turbos were built before production ceased the following year.

To produce this top-of-the-range 2002 version BMW took the single overhead cam 1990cc four-pot power unit, cut the compression ratio to 6.9:1 to reduce pre-ignition knock, installed a Kugelfischer mechanical fuel injection system and a KKK turbocharger. The result was a healthy 170hp at 5800rpm. At the time, turbocharging technology was in its infancy so the installation was given a blow-off valve to ensure the turbo unit did not undergo damage under sustained full throttle opening; wastegates had yet to be developed. Drive was taken via a Fichtel and Sachs 7.9-inch diaphragm clutch to a four-speed gearbox (a five-speed Getrag-type was an optional extra) to a limited-slip differential. Road test performance figures of the time were logged as being an impressive 0-60mph in 7.9 seconds and a maximum speed of 130mph. Average fuel







consumption was rated at 21.7mpg dependent on your right foot.

Brakes were disc/drums with ventilated discs up front with uprated Bilstein dampers on the Macpherson struts all-round. The rear suspension included trailing arms while the steering was a ZF-Gemmer worm and roller type. Significantly, despite the rather obvious wheel arch spats, BMW resisted the temptation to fit huge wheels and tyres, preferring to opt for 5.5x13-inch wheels shod with Michelin XWX type 185/70 VR tyres.

It was quite expensive when new though. At £4221 it was less than Porsche was asking for a 911 (E6124), but considerably more than an almost as entertaining Alfa Romeo 2000 GTV costing £2945. But let's return to Olly's love affair with the '02 Turbo. His first Turbo was a white one bought from 4 Star Classics near Reigate, Surrey. It had been previously

owned by a member of the BMW Car Club but to ensure that it was in absolutely tip top condition Olly sent it to Mark McClellan at MJF Engineering for a thorough check. "Mark began to find things that needed to be corrected; pipes fitted the wrong way round and so on. When I finally got behind the wheel I was confident that the car was the best it could be." For Olly, his first drive brought back all the memories of the early '70s, the music and the clothes. "A short way down the road I stopped, got out and walked around it, I couldn't believe that the BMW I'd thought about for the last ten years was now mine."

But, sadly, Olly's excitement was to be short lived, for driving home one snowy night the Turbo broke down and had to be left by the roadside. Inexplicably, it was torched and all that remained when the breakdown team went to collect it was a charred burnt-out wreck. Olly was devastated. "To make

matters worse the insurance company took many months to pay out for the claim," he reveals painfully. "But, I just knew I had to have another one."

After months of searching he eventually found one, a silver 2002 Turbo with 30,000 miles on the clock. He telephoned the seller and told him his tale. Someone else had arranged to view the car but the vendor agreed to put him off until Olly had seen it. "I called Mark at MJF, he agreed to come and I booked two first class train tickets to Luxemburg; we travelled in style," grins Olly at the memory. "The seller collected us from the station and took us to his heated warehouse where he kept his collection of cars. All around us were racing Capris, Alfa Romeos and Renaults. Mark crawled all over it, started the engine and then said simply, 'this BMW is even better than your old car.'"

It seems the BMW's first two owners were based in

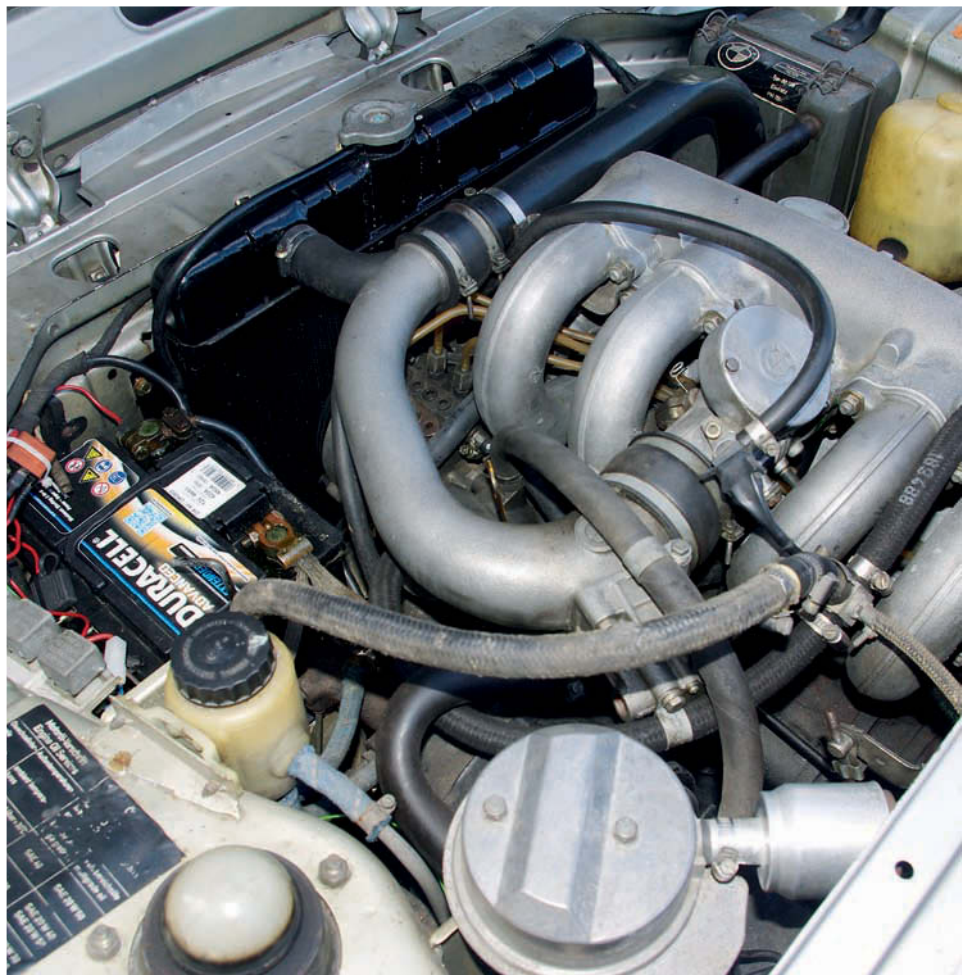




Monaco before the car was bought by the collector in Luxembourg. "It only had vehicle registration data from the second Monaco owner and the collector in Luxembourg as the original owner died leaving no clues over the whereabouts of the original documents," reflects Olly sagely. "It's we Brits who are really obsessed with a car's paper history."

The seller then arranged for the car to be transported to the UK. "I bought it in January 2012," says Olly. "I then put it through a comprehensive repaint job. There was a little ding on the front wing and other blemishes on the bodywork. I wanted it showroom-sharp."

Olly is passionate about originality. The car was then taken to MJF where Mark replaced all the pattern parts, such as fuel hoses, brake pipes and dampers with original components from BMW Classic. The twin headlamp clusters were removed







and replaced with the proper single light arrangement and the modern Yokohama tyres were changed for Michelin-type as supplied with the car. "The exhaust was blowing so this was removed and a new factory system was installed," recounts Olly. "For me, one thing that's special about this car is the smell. Every time we go out in it my wife and I are reminded of when we were younger. I'm very wistful about the '70s even though it wasn't the best of times. And, as with my first drive of a 2002 Turbo all those years ago, I am delighted by the way people respond to it, with huge smiles and waves as we pass."

Finally, I have to ask Olly if there is anything special he wants to do with his rather rare BMW? "My dream is to put it on a train to Nice and then drive down to Monaco, photograph it and just cruise around town," he says with a boyish grin. "It was there that it spent the first 30 years of its life, and where its first two owners drove and loved it."

So, over 40 years after the 2002 Turbo first hit the showrooms, what is it like to drive today? Very kindly, owner Olly Dean offered me the chance to find out by letting me take the wheel.

Climbing in behind the left-handed driving position (BMW only ever made the 2002 Turbo in left hooker form for fear that the considerable heat generated by the turbo unit would damage the steering box) the car feels pleasingly compact, exuding that indefinable

BMW cache of quality all Munich cars enjoy. Trim and fittings are well made and rattle-free. The front figure hugging recliners are of generous proportions giving good lumbar and back support – essential for a car of this performance magnitude.

Ahead is a thickly padded flat leather steering wheel. The main instruments are grouped in an easy-to-read neat three-dial binnacle behind; two extra dials, a clock and boost gauge, are grouped away to the right. Unlike lesser right-hand drive versions the turbo's clutch and brake pedals are floor-mounted with convenient space for your left foot.

Mechanical elegance is perhaps the least refined aspect of the 2002 Turbo; turn the key and the unit burbles into life with a degree of vibration that resonates throughout the body, which is acceptable, even expected, with a 2.0-litre car tuned to produce such lofty power heights linked to a large bore exhaust system.

Select first gear, a longish movement toward the driver and forward is smooth, matched by an equally silken clutch action enabling the driver to move off without drama. Initial reaction to a heavy foot on the throttle has little effect until the revs build. Then comes a satisfying thrust in the back as acceleration speed increases. Grabbing second is equally vice-less, the matched clutch/gear change action soon becoming one of the joys of this car.

Another praiseworthy point is the steering, with pleasantly no kickback from road irregularities being fed back to the wheel making it easy to place the car accurately. Around the lanes of Warwickshire the suspension happily soaked up ruts and bumps, adding to the enjoyment of the car. Third gear proved to be a good choice for making full use of the acceleration curve, dropping down to second for tight bends. The brakes, too, are well in harmony with the car's considerable capabilities. Keeping the engine spinning above the magic 3000rpm on the rev counter neatly overcomes turbo lag when searching for that satisfying kick-in-the-back surge.

In an all-too short assessment it was clear this 2002 Turbo has lost none of its performance verve and finesse, the handling, ride comfort and acceleration proving to be well up to expectations. Given its age this original 2002 Turbo is a very accomplished and satisfying car to drive. No wonder they are well sought after.

I hand the keys back to Olly with more than a hint of reluctance wondering what it would have been like to walk in to BMW's Park Lane headquarters in 1973, write a cheque for £4221 and drive away in a brand-new 2002 Turbo; this car must come pretty close ●

Thanks to: Olly Dean and Mark McClellan at MJF Engineering for their help with this article.



Download **BMWcar**

From just
£2.99
per issue!

Like to read your magazines digitally? No problem!

We've teamed up with the tech wizards at **pocketmags** to offer more interactive content than ever before, available on more platforms than ever before!

All of our digital magazine subscriptions and issues can be downloaded from anywhere in the world and read on PC, Mac, iPad, iPhone, Android devices, Kindle Fire, Windows 8 devices and the BlackBerry Playbook.

 **pocketmags.com**
Discover Read Enjoy



Now available on:



Available on
Pocketmags



Available on
Google play



Download on the
App Store



Available on
Windows 8



Available on
Kindle Fire



Available on
Blackberry

www.pocketmags.com/bmwcar

SUBSCRIBE FOR \$115

Exclusive offer for USA readers

SUBSCRIBE TO THE WORLD'S GREATEST
BMW MAGAZINE FOR JUST \$115!

Take out a subscription to *BMW Car* today and not only will you receive your copy before it reaches the shops, but you'll never miss an issue of your favourite BMW magazine.



DON'T MISS OUT!

Subscribe online at: www.bmwcar magazine.com
or call +44 (0)1732 748000





Tech Focus: Lighting Technology

We've seen plenty of new innovations in the car world over the last decade but advances in lighting technology have recently reached new peaks...

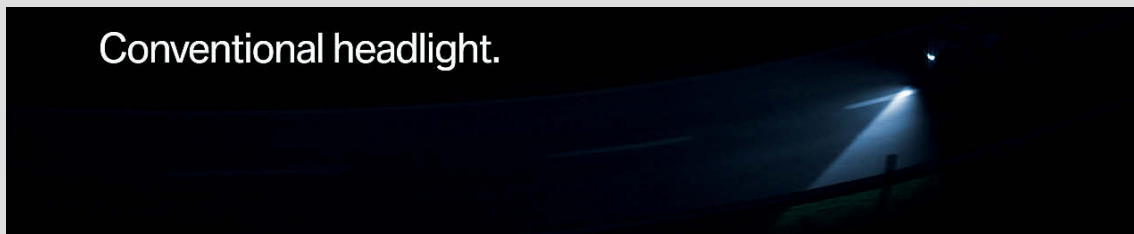
Words: Simon Holmes Photography: BMW

In recent years, technology seems to have taken a strong hold of cars as we know them. Advances have come thick and fast and they have filtered down into every aspect from engines and drivetrains to driver aids and, of course, driver safety. But safety can start with the obvious basics and it doesn't come any more obvious than lighting. Increased visibility at night, and during the day, is hugely important for both the driver and other road users yet real improvements to lighting have been slow to come over the years. Electric headlights appeared on cars around 1900 but the first real advance came in the 1960s with the introduction of brighter halogen bulbs. Aside from projector headlights and elliptical lenses to focus the beams

better it took another 30 years before another major advance occurred with the introduction of xenon headlights in the 1990s.

As a premium car manufacturer, BMW has long been at the forefront of all technological advances and lighting is no exception. It introduced the first HID headlights and then the iconic 'angel eye' running lights. Recently, however, there seems to have been a flurry of breakthroughs. We've seen brighter, more efficient and more complex LED and bi-xenon lights and soon there will be even be laser derived headlights. But how do they work, what are the differences and which are best? Here we will focus on the current and popular offerings from BMW with a look at what's around the corner, too...

Conventional headlight.



Adaptive Headlight.



Xenon Lighting

The first real breakthrough since halogen bulbs was the introduction of High Intensity Discharge (HID) lighting, which is better known in the BMW world as xenon lighting. Xenon is, in fact, the name of one of the noble gases that is housed inside the HID pressurised bulb. It's these gases that replace the usual filament found in a conventional bulb and the light is produced when a high-voltage current passes through the electrode at each end of the bulb. The gases help create and maintain this light.

Xenon lights produce a much brighter and more intense light. They also consume far less energy when they are working, although getting them up to operating temperature does require an initial surge of energy. Once working, they offer around 2.5 times the light for half the energy consumption of a halogen

bulb and also have double the life span.

However, there are downsides and complications. For a start, the light it produces is very strong so it has to be carefully controlled to avoid dazzling other road users. The beam itself is therefore more focused to improve accuracy and it is controlled electronically to vary the height when required. Also, although the bulbs themselves last longer, there is inevitably more to go wrong with the rest of the system and it can be expensive as the bulbs, igniters and resistors used to maintain the high current can all fail over time. They also take a little while to warm up to their operating temperatures and although it's only a few seconds it means they don't make ideal high beam headlights where instant light is needed. But that's where bi-xenon headlights come in.



LED Lighting

After HID light sources were introduced the obvious progression was an LED headlight. These were introduced onto the market around ten years ago. The Light Emitting Diode (LED) produces its light through the complex phenomenon of electroluminescence. The light itself isn't actually any brighter than a xenon light can produce but it's still far superior to a halogen bulb. However, there are many other plus points to LED technology.

For a start, LEDs consume a very low level of energy, making them much more efficient and they can react instantly, which is ideal when response time is key, such as for brake light or high beam applications. They also have a much greater life span than normal bulb and when an LED does begin to fail it won't stop working overnight like other bulbs. Instead it will decrease in intensity over time. The other major benefit is that an LED bulb is much smaller than a xenon or halogen bulb. This means the light can be more focused. On top of that, it also allows more sophisticated and complex shapes to be formed, which looks more stylish.

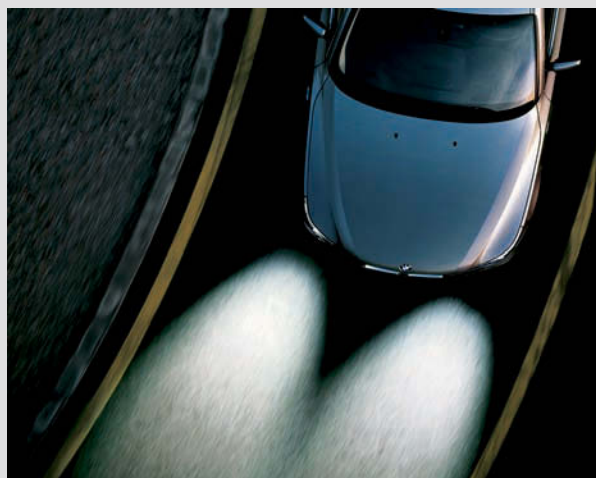
When used in low power applications, such as brake lights or running lights, LEDs don't create a lot of heat either but when used in higher power applications, such as headlights, they do require some form of cooling or heat sinking. This is their downfall as this makes the design and production more complicated and therefore expensive in these applications.



Bi-Xenon Lighting

To get around the issue of the initial delayed response from xenon lights, early headlight designs featured a secondary conventional filament bulb to provide the high beam. But to maintain a brighter, xenon-produced light for both dipped and high beam BMW soon introduced its bi-xenon headlight. This meant that a single xenon light source did the job of both beams by simply placing a mechanical reflecting screen in the path of light beam to divert it from low to high when required. A simple yet effective solution.





Added Benefits

Improved, better-controlled and more accurate lighting has also allowed for many other potential benefits. This is how clever options such as Adaptive Headlights, which are able to actively move and reposition the beams to avoid dazzling other road users, have been introduced. The headlight beam on modern BMWs is also automatically readjusted to counterbalance extra weight in the car or even move in unison with the steering angle to enable improved vision round corners. And due to improved energy efficiency daytime running lights have also become standard on many models to improve visibility at all times. These may be small advances but they all help in improving overall safety.

What's Next?

BMW has already developed a pioneering new innovation with its Laserlight system that will soon be available as an option on the i8 model. As the name suggests, laser technology has been carefully harnessed to create a far more intense and powerful light than ever before and it is cutting edge stuff. It works by using three blue lasers located within the headlight cluster and their beams are directed at a series of very small mirrors. These mirrors then reflect and focus the beam's energy into a lens containing yellow, fluorescent phosphorous gas. When exposed to the blue laser beam it reacts to create a very clear, bright white light. This is then reflected back again to diffuse the light before it shines out through the cluster.

Its abilities are staggering, offering a light up to a 1000 times brighter than a conventional bulb and with twice the range at 600 metres. It's also 30 per cent more energy efficient than even LED lighting, and the diodes themselves are ten times smaller, enabling the reflector to be just 3cm in diameter. This means the clusters can be much smaller whilst being more powerful, offering more flexibility with extravagant and stylish designs. However, the complexity makes this technology expensive as it also requires auto-dimming technology. A cooling system is also imperative as the system creates much more heat. At present, Laserlight technology is only available for high beam lighting but this will no doubt filter down to dipped lights in time.





F30 320i and 328i

As the current 3 Series begins to mature prices for used examples are dropping and it's easy to forget the petrol models offer just as much as the diesels... Words: Simon Holmes Photography: BMW

For some readers it may seem like the current 3 Series has only been around for five minutes and in the grand scheme of all things BMW that's not far from the truth. But the sixth generation of the Three actually arrived fresh-faced in early 2012, making the earliest cars some three years old now.

The all-new F30 picked up where the E90 left off but the sharper styling made an impact that brought the 3 Series right up-to-date. The front end was the biggest change, now looking far more stylish and modern with its long and low bonnet line, gaping air intakes and slender headlights that merged into the wide kidney grilles. The proportions elsewhere were improved thanks to graceful lines and pronounced wheel arches, joined by a sloping coupé-style roofline. Rear end styling seemed to have taken a notably safer approach but it was certainly a more modern improvement on the older and aged E90.

The slender lines may have made the F30 look longer, lower and wider but surprisingly that wasn't actually the case. The new car was indeed 93mm longer than the E90 but it was also 8mm taller and 6mm narrower, though you would struggle to tell as the wheels were now positioned further out to increase the track by 37mm at the front and 47mm at the rear. The wheelbase was also extended 50mm in length, giving the car more interior space and, with it, comfort as there was 15mm more knee room at the back. Despite the sloping roofline rear headroom was also increased by 8mm and boot space increased 20-litres to a sizable 480-litre total.

But as we've come to expect with new models, despite the increased dimensions weight actually decreased when compared to the equivalent previous model. What made that all the more impressive was the fact the F30 was loaded up with an even higher specification than ever before. Standard equipment for all cars, except the ES models, included 17-inch alloys, PDC, two-zone air-con, a rain sensor and automatic headlights, Bluetooth, automatic air-con, iDrive with a 6.5-inch screen, keyless starting, a USB connection, a multi-function steering wheel and cruise control with automatic brake function. There were also plenty of

cutting edge extras if you paid the premium such as Park Assist to effectively park the car for you, a Head-Up Display and full internet access.

The F30 was also more focused on efficiency, too, as all models featured Auto Start-Stop, Brake Energy Regeneration, an optimum gearshift indicator and Drive Performance Control, enabling the ability to switch between Eco Pro, Comfort, Sport and Sport+ modes. However, not everything was technically an improvement. The E90 LCI models were fitted with LED indicators whereas the F30 was not, although a smart guess would be that the LCI version of the Three will see LED lighting reintroduced. Elsewhere, it was also noted that the gas-strut boot hinges were replaced with somewhat obtrusive 'gooseneck' hinges.

The initial line-up was made up of two diesels and two petrol models, one of which was the 328i. However, it was not using the straight-six that the model designation used to denote, instead powered by a 1997cc in-line four-cylinder engine with BMW TwinPower turbo technology. Named the N20B20 it was a new and very advanced engine, featuring Vanos, Valvetronic, direct injection and a single, twin-scroll turbocharger. This one engine would be fitted across the range in varying states of tune to cater for different models and right at the top was the 328i. In this guise it produced 245hp at 5000rpm with a torque figure of 258lb ft at 1250rpm. This translated to a 0-62mph time of just 5.9 seconds when connected to the manual gearbox. Top speed was 155mph and yet it still returned an average of 44.1mpg with 149g/km, which were slightly improved upon with the eight-speed automatic.

At the release it was announced three more engines were soon to follow, one of which was the 320i fitted with another, detuned variation of the same 2.0-litre N20 engine. This time it produced 184hp at 5000rpm and 199lb ft of torque at 1250rpm, which gave a 0-62mph time of 7.3 seconds and a 146mph top speed, again with the manual 'box. It's notable that its performance was slightly quicker than the 320d model. The new petrol model also delivered 46.3mpg and 144g/km.

Prices began at £25,860 for the 320i and £29,060

for the 328i but for the first time there was no less than five levels of trim available to cover all tastes, preferences and budgets. It started with the conventional SE as the ES was not available on the petrol models. Then came the Sport, Modern and Luxury lines and added later in 2012 was the M Sport. Each offered a slightly different package when it came to looks, trims and finishes. The Sport cost £1000 more than the standard SE and featured unique alloys, a black chrome tailpipe finisher and gloss black air intakes in redesigned bumpers and the kidney grilles featured fewer slats. Inside there was red stitching on the sports seats, a leather sports steering wheel, red highlighting on the instrument needles and gloss black trim with red finishers. There was also Sport written on the sill trims. The Modern was also £1000 more than the SE and featured exclusive light alloys, redesigned bumpers and matt chrome finishers instead of the gloss black items fitted to the Sport. The seats were half leather and the interior finishers were two-tone Oyster coloured.

After that came the Luxury for another £1500 on top of the Sport and Modern. This came fitted with bright chrome finishers, exclusive 18-inch alloys, Dakota leather seats and anthracite wood trim with pearl chrome finishers.

Last of all came the M Sport, for £2300 more than the SE. It was fitted out with lowered and stiffened suspension, a unique aero kit and 18-inch M light alloys. The interior featured leather Sports seats, aluminium finishers and a shortened gearshift to accentuate the car's sporty feeling.

In 2013 the xDrive was announced, although it was only available in selected models, one of which being the 320i at a premium of £1500. It came with either a manual or automatic gearbox option but the extra traction cost a little performance and economy.

All models are currently still in production but as it approaches the three-and-a-half-year-old marker an LCI update will happen later this year. Expect sharper styling and a slightly improved specification but this may well be the prime time to buy one secondhand as the market begins to fill up with cars that have shed a majority of their depreciation already.



Buying one

There's no doubt that the equivalent diesel versions, particularly the 320d, are the more popular selections with buyers of both new and second-hand, but that's no reason to disregard the petrol models. For a start, there are less engine problems to worry about and although the newer diesels seem a lot more reliable than before, so did the older versions at one time, whereas petrol models have always maintained a consistently good track record. Then there's the price of diesel to take into consideration and unless you plan on doing plenty of miles on a regular basis then a diesel may not necessarily be the right choice for you. There's also no longer such a large divide between the way they perform since the current petrol engines started using turbochargers.

It's important to remember when looking at an F30 that these cars aren't exactly pennies to buy and being a newer model they should have been looked after. However, the 3 Series has long been the favourite of sales reps and plenty have been put to use travelling up and down the country on a regular basis, notching up the miles. These cheaper high milers shouldn't necessarily be avoided as they are usually well maintained but not always looked after so be vigilant in spotting a car that's not been cared for as it should.

When it comes to finding a good model it's certainly worth looking at a genuine Approved Used BMW. The prices are reasonable and you can usually barter a free BMW service or two plus they come with a fresh warranty for a year, which can

be handy as the earliest cars will be running out of their original three-year plan by now. As it's still early days for these cars it's always worth considering an extended warranty, too, for some peace of mind as the F30 is essentially still an unknown quantity for any serious issues that it may develop as it grows older.

If you're debating between the 320i and 328i then consider that both cost the same to tax at a modest £145, except for the 320i xDrive, which is £180. Also the 328i is a lot rarer and virtually impossible to find with a manual gearbox. It was a far less popular company car, so there aren't really any higher milers for bargain money out there either. The performance on the road between the two definitely differs and if you're concerned you won't be happy with the 320i's grunt then test-drive a 328i as well.

As for prices, we found a well spec'd 2012 320i SE with a massive 120,000 miles on it for under £11,000 and similar cars with less than 100,000 miles hover around the £13,500 mark. An SE with around 20,000 miles can be had for £16,000 and nearer £18,000 will get you a low mile xDrive SE. Approaching £20,000 will bag you a 2013 car with 15,000 miles or less in a choice of trim levels.

Prices for a 328i start around £17,000 for a 2012 SE with less than 20,000 miles and tip over the £20,000 mark for a low mile M Sport car.

Remember that as the F30 is due an LCI update later this year this will generally lower prices a little as buyers swap for the newer version.

Bodywork

Usually for a *Buying Guide* the first port of call would be to look for signs of rust but this is certainly not a problem with a three-year-old BMW and the F30 came with a 12-year corrosion warranty. If there is the slightest sign of rust or corrosion anywhere on the car then run a mile; it's a sure-fire sign it's had some bad repairs in the past. Be vigilant looking for signs of accident damage so inspect panel gaps and check for mismatched paint. Also look out for signs of a careless previous owner that's paid the car little

attention, as it can have a big effect. Smashed foglights, heavily stone chipped front ends and parking dents all indicate the car has led a hard life already. It's also an indication of mileage, so make sure everything tallies as it should.

Lastly, BMW didn't strictly call it a recall but there was a 'quality enhancement' carried out by the dealers for a majority of cars to change the water drain grommets in the bulkhead. It's worth finding out if the car is eligible.





Engine

As you would hope, problems here are virtually non-existent and nothing is showing early signs of causing a repeated issue either. There was another BMW-issued 'quality enhancement' to be carried out by dealers, this time regarding corrosion around the battery terminal and surrounding area. This was addressed easily enough so check to see if it's been done.

Other than that, problems in the UK are yet to emerge, however, it's worth knowing that in North America a recall has been issued following power assisted brake failures. This is actually caused by a restriction in the oil supply from the intake camshaft to the brake vacuum pump. There's been no sign of the issue arising here or in Europe, at least so far.



Wheels, tyres and brakes

BMW appears to have improved the quality, or perhaps the design, of their larger alloy wheels as the previously common cracking issues from running over potholes seems to have been eradicated. Run-flat tyres are standard issue across the board and, again, there are no major issues with these.

The braking system shouldn't cause you any concern either, aside from the recall which is covered in the 'Engine' section. However, it appears the F30 does like to go through rear brake pads quicker than you might think, with some owners reporting that their pads needed replacing with less than 15,000 miles on them. This does seem to depend on driving style, though, as the DSC system uses the back brakes.

Transmission and drivetrain

A majority of cars were selected with the eight-speed automatic that's fitted across the entire BMW range. It's a fantastic gearbox but there has been the odd report of a unit malfunctioning which requires a full replacement at the dealership. You will know if it has a serious problem as an error message will display on the dashboard. Whilst it's certainly not a common occurrence be aware of any noticeable clunking in the lower gears, particularly on downshifts at low speed as this can be an early indication something is not right. It's also usually worse in Sport mode where the shifts are more aggressive, so we'd recommend that you test the car in all modes.

The manual gearbox is pretty bulletproof and should give no worries but there are some complaints about the amount of clutch travel. This is normal as it is particularly long on the F30, but clutch travel reducers/clutch stops can be bought to help.





Interior

Although you shouldn't find it on the outside, believe it or not, there is an issue with rust on the inside of the car. Or, to be more specific, the front seat bases going rusty. Whether or not this is a large cause for concern is debatable it seems as it does appear to be only surface rust and for that reason BMW is not exactly forthcoming in its willingness to change them. If you kick up enough fuss with the dealer then these have been known to be replaced, usually with the galvanised versions, however expect a battle. If it does annoy

you or you fear it could spread then it should at least be treated before it takes a stronger hold.

Elsewhere there's little to worry about aside from the odd build quality issue, so check all the trim and plastics fit together nicely and make sure the seat material is all tight and taught. Some early cars had issues with the leather becoming loose where it attached to the bottom of the seats but this is covered by warranty. Also check the door and window seals don't squeal at speed, as this has been known to occur on occasions.



Steering and suspension

There's one rather common issue here that appears to affect an uncomfortably large proportion of cars. It's a light vibration or shimmy that can be felt through the steering wheel. It usually occurs around the 40-45mph mark, is worst around 50-55mph and then completely disappears at the 60mph mark. It doesn't shake the car itself, it's only felt through the wheel alone and sometimes it's as subtle as a light buzz you can only feel through your finger tips. Dealers seem to have problems tackling the issue and speaking to owners there are several theories as to why it occurs. Sometimes it

can be as simple as wheels being out of balance or tyres wearing in, as it has been known to get better over time. But a more substantial and common cure for the issue seems to be taking the car for a full laser alignment checkup by a professional to ensure the toe settings are correct. If it's even half a degree out then the Electric Power Steering system seems to accentuate the problem, creating the vibration. Other than that there shouldn't be any serious problems to worry about. Occasional reports of a knocking from the front suspension have all been resolved with a trip to the dealer.

F30 320i & 328i

F30 320i

ENGINE: Four-cylinder, 16-valve

CAPACITY: 1997cc

MAX POWER: 184hp

MAX TORQUE: 199lb ft

0-62MPH: 7.3 seconds (7.6)

TOP SPEED: 146mph (146)

ECONOMY: 46.3mpg (47.1)

EMISSIONS: 144g/km (138)

PRICE NEW: £25,860

F30 320i xDrive

ENGINE: Four-cylinder, 16-valve

CAPACITY: 1997cc

MAX POWER: 184hp

MAX TORQUE: 199lb ft

0-62MPH: 7.4 seconds (7.5)

TOP SPEED: 144mph (143)

ECONOMY: 41.5mpg (44.1)

EMISSIONS: 158g/km (149)

PRICE NEW: £28,805

F30 328i

ENGINE: Four-cylinder, 16-valve

CAPACITY: 1997cc

MAX POWER: 245hp

MAX TORQUE: 258lb ft

0-62MPH: 5.9 seconds (6.1)

TOP SPEED: 155mph (155)

ECONOMY: 44.1mpg (44.8)

EMISSIONS: 149g/km (147)

PRICE NEW: £27,060

Figures in brackets for automatic version

Verdict

The current 3 Series is more advanced, dynamic and stylish than ever before so it's no surprise that it's popular. This bodes well for second-hand buyers as the market is full of cars which in-turn brings the price down to decent levels for a three-year-old car. The diesel models are the obvious choice but the current range of petrol engines should not be disregarded. The introduction of turbo technology means they perform better than you will expect and deliver efficiency to rival a diesel for most day-to-day driving. Plus they seem bulletproof but then the F30 as a whole seems exempt from many serious issues, at least at present. With prices the way they are and the package you get in return it's a car certainly worth considering if you're looking for something fresher to replace your E90 with.



A1 INDEPENDENT BMW SPECIALISTS

Contact us on: **Tel: 01438 746 046**

BMW & Mini Specialists at Junction 7, Stevenage, Hertfordshire

Superb level of service and repairs to dealer standard not charges

BMW performance tuning ■ Accessory Activation ■ Approved by major lease companies ■ Air conditioning service ■ Latest BMW diagnostic equipment including coding and programming TV ■ Fully equipped workshop ■ Comfortable waiting room with free internet access ■ Free courtesy car ■ Fair honest rates ■ RMI Approved

WWW.A1BNSPECIALIST.CO.UK
Read our reviews on www.reviewcentre.com

D and T Wise Ltd Formerly traded as BM Wise
An Independent BMW and Mini Servicing Specialist

020 8303 5211

- Extensive Services
- 4 wheel laser
- History maintained on database
- ecu coding and remaps
- Full Diagnostic and Test Equipment
- This new service will not invalidate your new or used car warranty
- X5 Specialists
- Full car valet service

45-50% Savings
Service & Repairs Guaranteed

Why pay main agent prices

www.dandtwise.co.uk
316 Broadway, Bexleyheath, Kent DA6 8AA

GREAT DEALS on all BMW Fitments

Over 90,000 Tyres in stock!

From High Performance, 4x4 and Economy to all **BMW** approved 'OE' fitment tyres all at **DISCOUNT PRICES!**

OPEN Mon - Fri 8am-6pm Sat 8am-5pm
www.tyrecity.co.uk

TYRES
WHEELS
BRAKES
ALIGNMENT

BRANCHES at:

| | | |
|--------------------------------|---------------------------------|--|
| EDGWARE 0208 952 8088 | BROMSGROVE 01527 878 460 | COVENTRY Foleshill Rd 02476 220 731 |
| LUTON 01582 561 389 | REDDITCH 01527 528 090 | COVENTRY Humber Rd 02476 457 118 |
| COULSDON 0208 645 2700 | LICHFIELD 01543 253 675 | WOLVERHAMPTON 01902 313 393 |
| GUILDFORD 01483 533 584 | HALESOWEN 0121 5595 093 | KIDDERMINSTER 01562 829 753 |

TYRECITY
:: LOW PRICES • FAST FITTING ::

THE ULTIMATE BMW INSURANCE

FROM CAR ENTHUSIASTS TO CAR ENTHUSIASTS

- Tailored Modification Cover
- All Models Covered
- Free Legal Cover
- Instalments Available
- Car Club Discounts
- Agreed Value Policies
- Track Day Insurance

03303 331 250 | @skyinsurance | info@skyinsurance.co.uk

Authorised and regulated by the Financial Conduct Authority

SKY INSURANCE.co.uk

LONGTERMERS

The MINI departs for pastures new, the M6 gets a new set of alloys and the 135i has come in for a dose of heavy tuning

E24 M635CSi

Having put a few miles under the M6's wheels since I got it I had come to the conclusion that the metric rims and Michelin TRX rubber were going to have to go. On the one hand they do look absolutely perfect on the car and I've yet to see a Six on alternative rims that looks so quintessentially 'right' as a TRX-shod machine. The flip side of the coin is that the tyres are ferociously expensive, hard to come by and offer about as much grip in the wet as worn-out trainers on sheet ice. While this can be quite entertaining at times it does limit one's progress and if you happen to forget what car you're driving as you negotiate a roundabout it can be a little unnerving having to apply a liberal dose of opposite lock to keep things on the

straight and narrow.

Thus the search for a set of non-metric rims was on the cards. The original wheels are about 16.3 inches in diameter so as far as I'm concerned the best wheels to fit are a set of 16s as to my mind this wasn't a car that was designed with bigger rims in mind. 17s might fill the arches better but I'm more concerned with ride quality and handling balance than the ultimate in aesthetics. And perhaps most crucially so many E24s now run on the 17-inch cross-spoke three-piece Style 5 wheels, as fitted to the E31 8 Series and the E39 Five, that I wanted to do something a little different while still aiming for a vestige of originality in the looks department. I toyed with the idea of Alpinas but in

the end decided these look better on a pre-Highline Six than the later cars. E28 M5 16-inch cross-spokes would be perfect but are as rare as unicorns and as expensive, too. I spent ages on the bigcoupe.com wheels and tyres forum looking at what other folk had done but every time I clicked my browser window shut I felt I hadn't got any closer to alloy nirvana for F570.

And then I had my epiphany in Munich Legends' car park. Sitting there was an E24 M635CSi sitting on a set of 16-inch cross-spoke alloys that I was pretty sure were from an E38 7 Series and also one of the optional wheels fitted to the E39 Five. Some research confirmed that the wheel had been available on both cars – 8x16-inch on the E38 and 7x16-inch on the

E39. Whichever one I went for I would need to fit lower profile rubber in order to keep the speedo reading correctly and while the E38 rims have the correct centre bore their offset is ever so slightly wrong for a 6 Series. After some digging it transpired that some owners who had fitted these reported that the tyres could foul the front suspension leg. E39 rims bring their own problems in that the centre bore is the incorrect size, although this can be easily solved with a set of spigot rings.

Now I'd decided what I wanted it was a case of trawling the classifieds and keeping a close eye on eBay. Being a bit of a skinflint I missed out on a couple of sets but eventually a third set popped up on my daily eBay





search. What made this set particularly attractive was that they already had tyres of the correct size fitted as the seller had used them on an E34 535i Sport when he'd ditched the metrics. They were originally from an E38 and the seller confirmed that while they were pretty close to the front suspension leg when fitted to the E34 there wasn't any fouling. It seems that depending on the brand of tyres fitted the shoulders of some makes bulge out further than others and it's the tyre rather than the rim that can foul the leg. I felt I'd done my due diligence and determined not to miss out I put in a fairly high bid and waited somewhat impatiently for the auction to end. I was pleasantly surprised a week later to discover that

I was the winner for the sum of £415 which wasn't too bad, especially given the Falken Ziex 225/50 rubber fitted had only done 200 miles or so and were effectively brand-new.

I sallied forth to Gloucestershire to pick them up and while not unmarked they did seem to be in very decent condition and the tyres were, indeed, almost brand-new. Once I'd got them home I needed to pop them into the Six so I could pop over to BM Sport (www.bmsport.com or 020 8304 9797) to have them fitted. This was easier said than done as I could only squeeze two of the wheels into the boot and had to pop the other two on the back seat with old coats protecting the leather.

I could have fitted the wheels

myself with the aid of a trolley jack but I wanted to have a detailed look at how close they were going to be to the front suspension leg. And when the car was up on the ramp it would also give me a chance to have a look at the ghastly exhaust that's currently fitted as I wasn't sure on exactly how much of the original system remained.

As ever the chaps at BM Sport were fast and efficient and it seemed like only a matter of minutes before the metrics were off and the new Style 5s were on the car. They are quite tight by the front suspension leg but don't actually foul and I'm really rather pleased with the way they look.

On the road they're a bit of a revelation being a lot quieter and significantly grippier than the TRXs.

Obviously the Falkens don't offer the ultimate grip of Pilot Sports or Conti SportContacts but by my reckoning you don't want anything too grippy on an old chassis like the E24 as it wasn't designed with this sort of grip in mind. And a bit of slip is entertaining, no? Just not too much. Overall I'm really very pleased with the new wheels and tyres, although Mrs H is less delighted about storing the TRXs which will be kept for the purposes of originality.

Studying the exhaust when up on the ramp was less pleasing, though. I'm effectively going to need to find an original manifold back system as the new centre and rear sections just don't look or sound quite right. I've yet to feel brave enough to find out exactly how much a new original system will cost – I know it's going to be eye-watering – so I'm currently looking out for a decent used system, or perhaps thinking of having a bespoke system made up for the car. Decisions, decisions...

Bob Harper



E24 M635CSi

YEAR: 1988

MILEAGE THIS MONTH: 48

TOTAL MILEAGE: 161,454

MPG THIS MONTH: 21.9

TOTAL COST: £415 (wheels and tyres)



E82 135i

This month has been an exciting one. Over the Christmas break I took the car to my good friend's garage and had him fit the Burger Tuning JB4 at long last! Having read the very detailed online fitting instructions it did seem a little daunting but the installation turned out to be far easier than I expected and it was actually a relatively straightforward process.

After removing the plastic trims by the scuttle panel to gain access to the ECU connections, it was then just a matter of sliding the plugs out of their holders and fitting the correct T-piece connector looms that come with the JB4. There were then a couple more intricate pin changes to the power supply plug. This was slightly more involved in my case as I had also opted to fit a Burger Tuning-supplied 2Step relay module. This clever add-on enabled the launch control and full-throttle gear change features and it

only cost £25, so I decided it made sense to fit it at the same time. The whole process from start to finish took around 30 minutes, which I thought was pretty good going. Then it was just a matter of going for a drive and getting to grips with the controls, options and features.

My first impressions are that it is by far the most impressive piece of integration I've ever seen for an aftermarket modification. Having owned and built plenty of modified cars over the years it puts a whole new angle on what tuning has become for modern cars. The JB4's ability to seamlessly interact with the car's existing displays and controls that then allow it to control certain features of both the car and engine is truly astounding. I understand, of course, that this is largely due to the car's own very clever CANbus wiring, but nonetheless you can't help but be thoroughly impressed.

To access the settings, you simply press both the minus buttons either side of the steering wheel that usually control volume and radio station together. Then, the speedo and rev gauge are 'hijacked', now displaying what the JB4 is doing. It does this even when on the move and by using the same steering wheel controls you are then able to scroll through the various and very clever options.

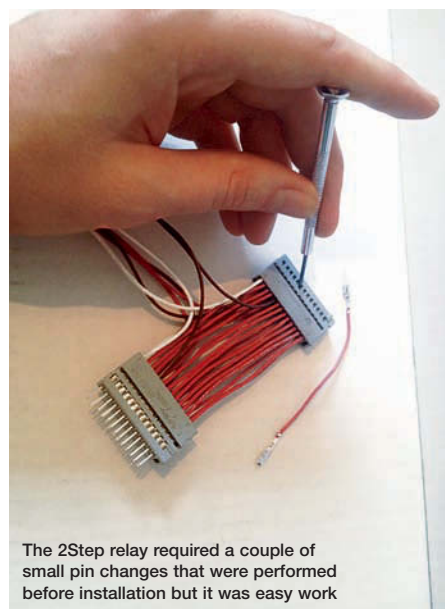
How clever is it? I've read about the features before but actually using them is different. First up the JB4 enables you to choose one of eight maps that each give varying levels of power and tune as you're driving along. Impressive, but then there's the ability to set the car's hazard warning light arrows to act as a shift light, and you can set at what RPM they come on. These don't display outside of the car, only on the dashboard. Or how about permanently opening the secondary valve in the exhaust's back

box that usually opens only at certain times for a deeper engine note? Or hijacking the fuel gauge to display boost or ignition timing. It takes just minutes to get used to and provides hours of fun, as I've found out.

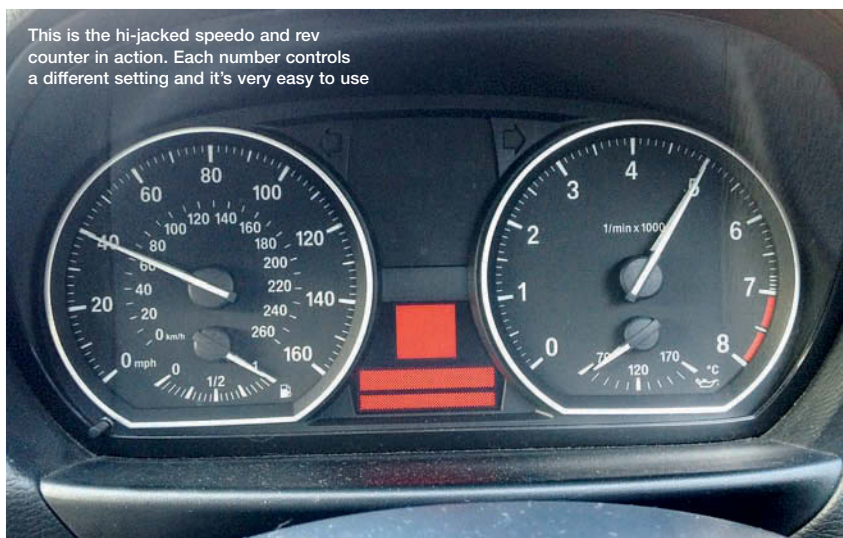
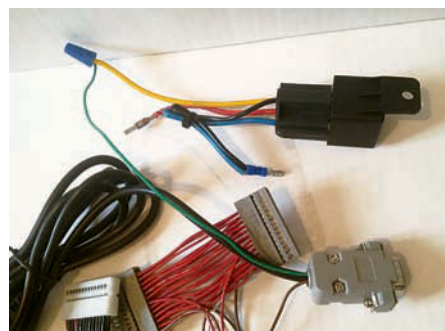
And then comes the performance. I found out something interesting before I fitted the JB4, and that was that my car already had a remap. I'll be honest, I suspected it might have done but I wasn't sure. It certainly felt a little peaky but having never driven a standard car I had nothing to compare it to. As I wanted a clean slate to start from with the JB4 I opted to have a standard map file loaded back onto the car via the OBD port and after doing so it made the car feel noticeably slower.

So what's it like now? In Map 1, which is just slightly more boost over standard, it feels much livelier than it ever did before. It picks up quicker and the initial wave of torque arrives with notably more force. It seems to hold the power for longer, too. Then there's Map 5, which is the self-learning setting that tailors itself to the car's conditions, taking into account the quality of fuel, how cold it is and so on. In this mode the car feels positively electric. It punches harder and with more urgency and then, when you think it's done, it seems to inject a second, huge wave of torque as you approach the redline and it genuinely forces you back in the seat. In this mode it feels quick, very quick. It's amazing to think there is nothing else done to the car other than this clever box of tricks that took just 30 minutes to fit. I'm now itching to see how much of a gain it has made on the dyno and I'm very curious to see how it will perform in conjunction with other modifications.

The only downside I've found so far is the slightly annoying fact you can't change from Map 8, which is the



The 2Step relay required a couple of small pin changes that were performed before installation but it was easy work



This is the hi-jacked speedo and rev counter in action. Each number controls a different setting and it's very easy to use



Left: The Forge intercooler is beautifully crafted and very well made. The welds and machined connectors are particularly nice. Above: The JB4 about to be installed after a little wiring

economy mode with no boost at all, to another map whilst driving, whereas all the others you can. Instead, you have to stop and turn the engine off. It's not a big deal but I would be interested to see how much difference Map 8 makes on a long run but I wouldn't want to be stuck in it for 40 miles until a service station came up where I could pull over. Other than that, I genuinely can't fault it. I simply wish I had done it sooner!

In other news, after much debate I've also taken the plunge and ordered an uprated intercooler from Forge Motorsport. The prospect of choosing an uprated intercooler for a 135i – or any car for that matter – can be a daunting one, I find. There are so many on the market to choose from and prices vary so dramatically it's hard to tell which are the good, the bad and the ugly. For instance, I

searched all over and found intercoolers from China for a third of the cost of an identical looking item from America. It soon appeared that there were, in fact, plenty of American companies offering intercoolers that seemed like good deals for the money but by the time import duty, which is calculated in relation to the value of the item, and delivery was added, that price wasn't quite so appealing. I also scanned the forums and looked for advice, which also seemed to vary massively, so I simply went with what I knew would be good and chose a Forge item.

The main reasons for my selection were because I'd used their products before on a past project and loved the high-class fit and feel. Plus they had performed impeccably on previous turbocharged cars I had owned. Forge has been in the business a long time

and it is also a UK-based company, which I prefer. This was because I was concerned over horror stories of damaged or even lost parcels, something I wanted to avoid on an item that's quite fragile.

So I ventured onto the www.forgemotorsport.co.uk website and ordered one of its uprated replacement intercoolers. It's actually designed to fit both the 135i and 335i models and although it features a much larger core, it doesn't require any cutting or trimming of the plastics, which is what I wanted. It's also a direct fit so no modifications or extra brackets have to be added at all and it even attaches to the standard BMW type hose clips to make fitting easier.

At the time of writing the intercooler has only just arrived as some products are built to order and it won't be fitted until next month but I couldn't resist

taking it out of the box for a quick look. As expected, the quality and finish look superb and I love the machined ends. I am looking forward to having it fitted next month and seeing what a difference it makes.

Simon Holmes



E82 135i

YEAR: 2007

MILEAGE THIS MONTH: 2032

TOTAL MILEAGE: 71,815

MPG THIS MONTH: 32.4

COST THIS MONTH:

Forge intercooler (£739.95)

F10 M5

I have been away with work and on a family skiing holiday this month and, as a result, the M5 has spent a lot of time stationary in a car park. It started first time after a couple of weeks of inaction and has run without any problems since. It did demand a litre of oil, though, and this was added by the good folk at BMW Swindon under the Service Inclusive pack.

The odd small flurry of snow has, so far, offered no challenge to the winter tyres with the M5 driving through the cold weather and snow with ease. Thanks to good quality screenwash, and effective airflow I have never struggled to clear the windscreen although I do sometimes wish that a heated windscreen had been on the options list. I have it on other cars and it does dramatically cut down the time it takes to clear away ice on a cold morning.

The car is now coming up to three years old and the reminder of this arrived on the doorstep in the form of a renewal form for the Connected Drive. Although I collected the car on 1 March 2012, the Connected Drive was registered in February so that was why the polite request for £120 for the next 12 months arrived in January. £10 per month for a data connection does seem quite strong but it does allow me to send routes and data to

the car from the BMW website. It also enables the Google local search functions and the very effective traffic data. I therefore signed up for another year. I pay less than this for the 3G data on my iPad, so it does seem pretty expensive given the amount of data that the service uses. However, as not having the Connected Drive functions active would be a bit of a pain, and I do use them fairly often, I coughed up.

Next month is going to see the M5 on a winter road trip across Europe. We shall see if BMW's reputation for poor winter driving characteristics survives the reality of the Alps in winter, or if fitting the right kit makes the car usable in any conditions that it is likely to encounter, short of going off-road that is.

David Ingram-Hill



F10 M5
YEAR: 2012
MILEAGE THIS MONTH: 1096
TOTAL MILEAGE: 41,422
MPG THIS MONTH: 21.4
COST THIS MONTH:
 £120 (Connected Drive renewal)



E46 318i SE

There's not a lot to report this month. The E46 has been doing its daily duties with ease, which is good, because that's why I bought it. There are a couple of niggles, though, as one

would expect from an old car.

First, the bloody airbag light is on again. I can only link this to the time it went in to have the passenger airbag replaced as part of a safety recall.

However, having spoken to the dealership in question in a bid to get the problem remedied, it turns out it wants to charge me. I don't understand that, especially considering

that – to my mind – it is responsible for causing the issue. Anyway, my bank account is still recovering from Christmas, so unfortunately it will just have to wait.

The other niggles come in the form of an oil leak I've yet to pinpoint. It's not severe or gushing, it just needs a top-up every 2000 miles or so. However, it is something I should get looked at just in case it's something that can potentially get worse. I also need to get the Yokohama tyres fitted along with the Eibach springs. With Christmas in the way I've not found the time to get those bits done yet but I assure you I will have done so by the time you next read an update!

Chris Pollitt




E46 318i SE
YEAR: 2003
MILEAGE THIS MONTH: 3110
TOTAL MILEAGE: 129,476
MPG THIS MONTH: 40.2
TOTAL COST: Nil

F20 118d Sport

Ice. About this time of year you might expect to find it on a road, on your car but not on the inside of your windscreen. And yet that is exactly what greeted me one morning when I opened the door of the 1 Series after a cold night.

You know things are bad when you have to use de-icer inside your car. I was tempted to go to Cooper Sevenoaks, give it the 118d and tell the guys there to keep it until they had fixed it but seeing as they had no real idea what was causing all the condensation last time around, I honestly couldn't be bothered. Perhaps it is my daily short journey that's the problem? Maybe a long run would help to dry it out. Note to self: drive somewhere far away.

My moisture-absorbing sausage had been doing an admirable job of

keeping the interior damp-free, but giving it a squeeze one day and finding it swollen and damp I decided to bring it indoors and recharge it on a radiator as per the instructions. For the time being it's now taken up residence in the E39, which had started to exhibit the same condensation problems as the 1 Series. But, I can forgive it because it's a) not a new car and b) I'd been getting in and out of on consecutive cold nights while trying to put some electricity back into it with a combination of battery charger and solar trickle charger, so I assume I let some moisture in and not driving the car or using the heater meant it had no chance to dry up.

Complaining to my neighbour about the condensation one morning, he mentioned that VW T5s like his can suffer from it too and he was told to

make sure that the fan was directed into the footwell rather than the windscreen when leaving the car overnight to help stop it from happening. I figured I had nothing to lose and decided to try it too and it seems to be working, though it does depend on me remembering to change the direction for the fan. When I have I return to a droplet-free interior, so success of a sort I suppose.

There's not much else to report really – the 118d is looking exceedingly dirty these days so I should probably wash it at some stage, though I am reminded of a quote from *The Simpsons* quote where Homer says to Marge, "who needs a car wash when you can just drive around in the rain?" – so maybe I'll just do that!

Elizabeth de Latour



F20 118d Sport

YEAR: 2013

MILEAGE THIS MONTH: 13,597

TOTAL MILEAGE: 593

MPG THIS MONTH: 48

COST THIS MONTH: Nil

E61 520d SE Touring

In a month of contrasts the easy has been made hard and the potentially tricky easier than expected.

The fuel filler flap's 'push-to-release' catch wasn't working so I searched on Google to see if it was a common issue, what to look for and how to take it apart. It turns out its not unusual as the rubber gaiter which covers the button wears through and the lack of a mere 1mm of rubber is

enough to prevent the release from working properly.

I visited Arden BMW's parts department and tried to explain what I wanted to the puzzled assistant. After a minute of prodding the computer he said he had one in stock but I would have to buy the complete switch assembly. Braced for an expensive answer I dared to ask how much it would cost. £5 was the



surprisingly affordable answer.

And it got better: when I got home to fit it, just a small screwdriver was needed to release the clips and pop the old one out and the new one slotted straight in. It couldn't be easier!

A few days later I noticed the front tyre had gone down after being parked for a day (my winter tyres are not run-flats). No problem, at 3 o'clock on a Saturday I should be able to get that looked at, even in rural Lincolnshire, so I headed to the nearest town, to find not only had the local garage closed, the two petrol stations were shut and had taken their air lines in for the night!

Limping further afield I found an

active air pump but didn't have the right change so nursed it back. Fortunately another visiting relative had a pump in the car and I was able to top it up and next morning search online for an open tyre fitter and drove to Kwik Fit in Skegness where we left the car and went for a walk on the beach. It turned out the seal to the rim had failed so it was a simple clean up and refit. They also noted that with more tread remaining on the front, the full set would last longer if rotated so I had Kwik Fit swap the front and back wheels round.

Matt Richardson



E61 520d SE Touring

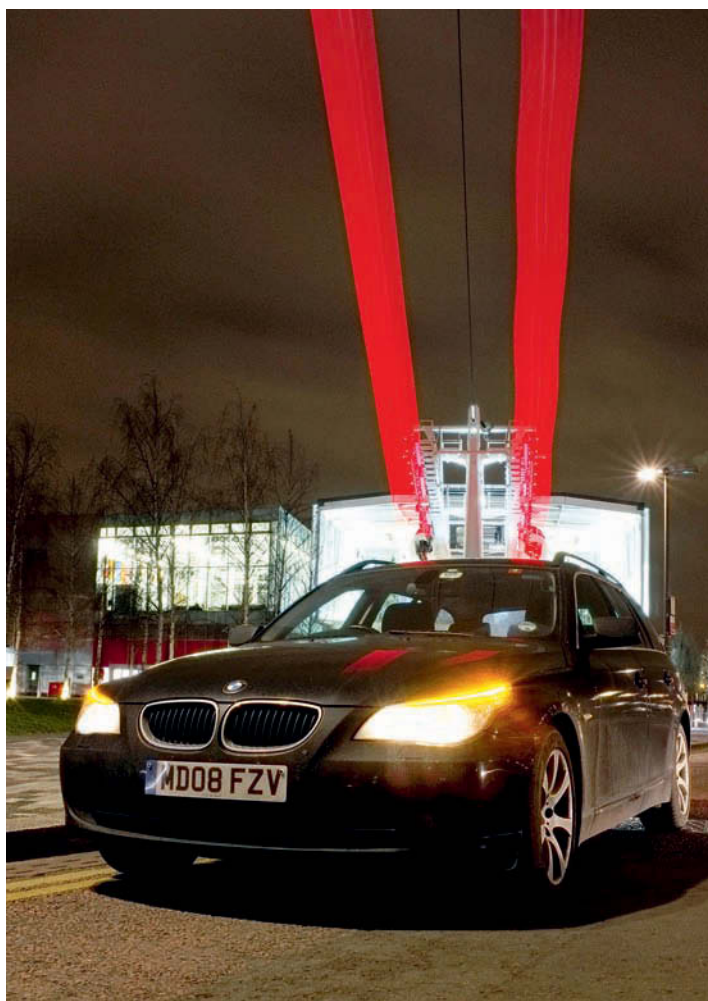
YEAR: 2008

MILEAGE THIS MONTH: 2677

TOTAL MILEAGE: 153,553

MPG THIS MONTH: 47.8

TOTAL COST: £50



MINI JCW GP

It's with a slightly heavy heart that I inform you that the GP and I are now parted. It only happened yesterday but it doesn't seem right that it isn't sitting outside, metaphorically wagging its tail wanting to be taken out for a drive. But that was part of the problem, of course, that infectious character that so defined the car and gave it such personality requires the resolve of a monk if you aren't to drive the wheels off the thing.

I know it's the right decision, though. Within five minutes of getting back behind the wheel I found myself whizzing up the gearbox on a motorway slip road, engine singing towards the redline, so it simply had to go.

The GP's direct replacement will surprise (and bore) you in equal measure. It's a new VW Golf 1.6 diesel hatchback. Yes, you read that correctly. Better in crucial areas than a BMW 116d in my opinion but dull and, most importantly, slow! Let's move on shall we?

The GP's handover very nearly didn't happen on the allocated day. Having left the car on the driveway the day before and gone out in the Golf you can imagine my surprise when I returned to find the GP wasn't exactly

where I had left it. During the day it had slid down the icy driveway all on its own, with the handbrake fully on and the gearbox in reverse – I've always said the car had a mind of its own! Luckily it had stopped sliding just before hitting the house but it was just another example of a mischievous car that attracted trouble.

Of course, to leave it like that would be an unfair summary of what has been a hoot of a car to drive for the past year. I've said it before but it's worth saying again that I don't think there is a better drivers' car out there this side of £40,000 that can be used every day.

So if you are considering getting a GP either now or in the future, what are the things you need to know? After 32,000 miles in a year in mine I should be able to help guide you.

Well, one thing which defines the GP experience are the special track-spec Kumho tyres. Having tried Goodyear Eagle F1 replacements once, don't make the same mistake I did. They rob the car of crucial layers of sportiness and some of the character goes with them. The Kumho's are expensive though and they wear out very quickly – getting any more than 5000 miles out of a

front pair is good going and a dry track day will finish a set off if you use all the performance. The grip levels they offer, though, are simply staggering and something that takes a little getting used to. They also contribute heavily to the sharpest turn-in response this side of a Lotus Exige, which can catch the (very light) tail of the car out if you don't drive smoothly.

Suspension-wise be aware that my car had to have its front coilovers replaced after they started rattling at something like 12,000-14,000 miles. I know for a fact others have suffered

the same fate although the amount of time a dealer who hasn't seen a GP before can take to diagnose the problem can be very frustrating indeed. They are currently warranty items, though, but I wouldn't like to leave it to BMW's goodwill once GPs start to get to three years old. An extended warranty might be a worthwhile purchase at that point.

The GP is a very special car and one that takes no prisoners. Driven well and enthusiastically the chassis can be as edgy and adjustable as a decent rear-wheel drive car. Don't





think of it as another front-wheel drive hatch you can take liberties with – on cold tyres or in the wet it can seriously bite. But that's part of the appeal. To own one and use one day-to-day takes commitment and you need to be prepared to make a few compromises. Don't expect normal MINI levels of refinement – with no back seats or parcel shelf and those sticky tyres and track suspension setup, the road noise is pretty full on, for instance.

But if you are prepared to commit to a GP it will make every journey feel special. The general public love GPs, in my experience. I lost count of the number of people who asked me questions about it, came up to me in petrol stations or were taking pictures of it in car parks. The only people who don't seem to respect GPs are 2.0 TDi Audi drivers on the motorways but given they seem to try and barge past me when I'm in the RS6 they appear to do that to everyone!

Day-to-day it is, however, a surprisingly practical car in terms of luggage capacity. Because there are no back seats it means the car will take suitcases and bags galore and can be loaded up like a Mini (not MINI) Estate car. You will hear your luggage creaking and groaning behind your left ear, though, so pack well.

The bi-xenon lights are simply stunning on unlit roads and the heated seats are a welcome bonus on cold winter mornings. The seats are comfier than they look but disappointingly unsupportive when you are cornering really hard. Despite covering over 30,000 miles, mine looked practically new when I left them with no bolster wear, shiny leather or ruffled stitching.

In my experience the engine is foolproof. It only drank half a litre of oil between services and never gave any grief. It's a blinder of an engine, too, not feeling at all breathless at the top end of the rev range like many turbo installations can. If it had a redline of

8000rpm you really felt it would pull all the way without issue. Coupled with a lusty, low-rev response and scant turbo lag it's a classy drivetrain and one that would stand scrutiny in more expensive machinery, should BMW wish to extend its usage.

The gearing is also spot-on and allows you to zip through the gears with the engine always in the sweet zone but drops the revs just enough on the motorway to offer a fairly relaxed cruise. Whilst the gear change isn't the slickest I've ever experienced the change is fairly positive and you never hook the wrong gear.

Fuel economy was a pleasant surprise. Driven exclusively on Shell super unleaded I estimate my long-term average will have been around 34mpg. A high of over 57mpg shows how economical the car can be on a motorway. A low of 11mpg was plain fun! The tank isn't exactly big though, so driven with gusto you can drain it fairly quickly.

Talking of driving with gusto, the car's track performance has to stand out as a particular highlight. On a cold winter's outing at Bedford Autodrome the car was simply immense. Only three cars passed us all day, namely a Porsche 911 GT3, a Nissan GTR and a Lotus 340R, the latter having to try oh-so-hard to eke the tiniest of advantages. The speed you can carry through the faster corners is staggering – testament to the aerodynamic parts on the GP that actually create positive downforce the faster you drive. You would actually think the car would get more nervous as the speeds rose but the flat underfloor and rear diffuser sucked the car to the ground and meant you could feed the car into 100mph+ corners with incredible confidence that it would stick. The brakes also refused to fade no matter how hard I leant on them. Perhaps that shouldn't be a huge surprise given that the callipers are lifted straight from the



heavier and more powerful BMW 135i.

There are some niggles, though, to consider: the windscreen is so upright it is particularly susceptible to stones and cracking; the lack of rear wiper means the rear screen is all but useless in the winter; the roof's rain gullies aren't deep enough and deposit water through an open window/door if it has rained overnight; the Bluetooth is useless; and the quality of the exterior plastics leaves a little to be desired. Unless you religiously apply a product to the arches and plastic trim that blackens them they will go light grey very quickly indeed, plus they get peppered with stones and detritus flicked up by the sticky tyres. The paint, on the other hand, is surprisingly resilient to stone chips and general wear and the colour responds very well to a good polish and wax.

Whilst I would love to tell you about residuals, surely a strong point in the GP's armoury, I'm not sure if my experience can be of that much help? At 12 months and 32,000 miles, my car is hardly representative of the average car on the market. The next highest mileage GP2 I can see advertised as I write this is 21,000 miles and plenty still haven't broken double figures yet.

At any rate its trade-in value stood at £18,000 – some £11,000 under its list price. You can take your own view on whether that is a good, bad, or indifferent price but it is fair to say that low mileage GPs seem to be faring quite well.

So, all things considered would I have another one? As a track toy, yes, I certainly would. Would I recommend one to a friend? Yes, I would, as long as they can drive a bit and it isn't their first performance car.

Whilst it might have gone now, it's certainly true to say that the GP has left a lasting mark on me – it won't ever be forgotten.

Elliott Stiling



MINI JCW GP

YEAR: 2013

MILEAGE THIS MONTH: 344

TOTAL MILEAGE: 32,104

MPG THIS MONTH: 36.2

COST THIS MONTH: Nil

F30 320d Sport

How much does your car cost you to run every year in terms of fuel, insurance, servicing, tax and tyres? Removing the thorny issue of depreciation from the equation (too many variants), this month some rough mathematics suggests £3k as the annual cost for running KP12. Or about 20p a mile, give or take.

I wouldn't normally be so interested in the running costs of a quite prosaic form of motoring transport as, let's face it, a 320d isn't what you'd call rare, nor an expensive car to run. That's the perception anyway. But as has become apparent this month, it can be more expensive than you would perhaps expect.

KP12 was due a service as I said recently. The mileage indicator had been steadily reducing so one morning in it went to North Oxford for what the iDrive claimed was an oil service and a vehicle check, the latter of which I assumed was something along the lines of what an Inspection I or Inspection II used to be back in the day. I had thought that a brake fluid check was also due but that's not until March, apparently. Still a big service, though, so I was expecting the bill to be significant. But if you'd asked me to guess how much it would cost, I'd have reflected for a moment and perhaps estimated £400 top whack, and even then I'd ask what had been done. Well, the bill came in at £466, which was a bit of a surprise.

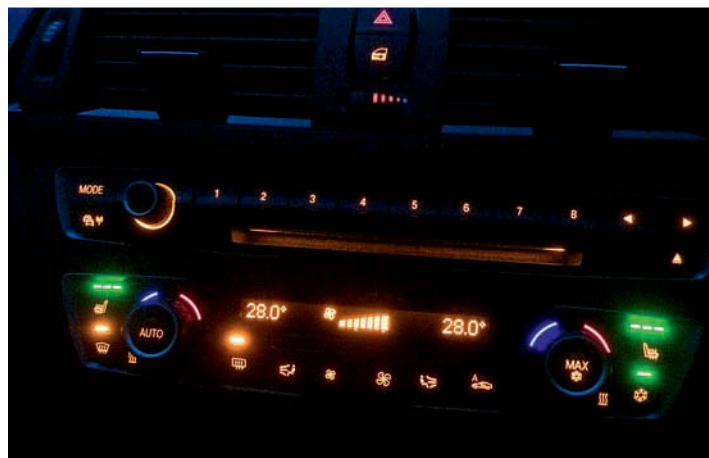
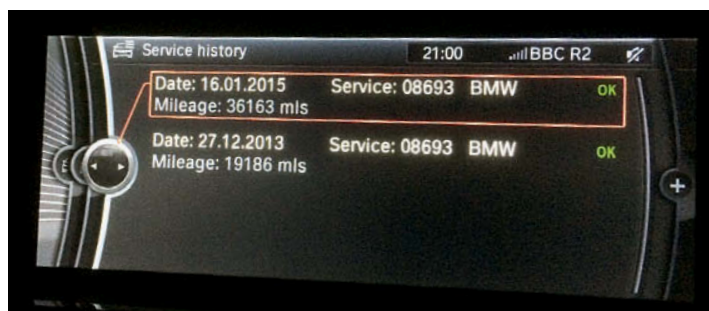
Couple of things to clarify here before we get into this. First off, this is not a whinge at North Oxford BMW. As will become apparent, it dealt with the situation gracefully and effectively, although it needs to be noted that the circumstances were unique to myself as the customer. Don't come crying to me if your dealer fails to treat you as fairly as I doubt what follows would travel elsewhere as a common policy. And second, in general terms and having had a rock-solid reliable car

since purchase, if that's what the car needs in order to keep it together, maintain the warranty and so on, then I would have paid it, albeit with a raised eyebrow, and left with a car I considered fully fit for the next 12 months. But I didn't pay it; it didn't feel quite right to me based upon personal experience and circumstance. But we'll come to that.

What interests me here is the cost of servicing a Three Series. There's thousands of them on the road. Literally. The days of BMWs being premium in terms of being at a premium are long gone. That is to say, they are everywhere. They are still a premium product to drive and own but I'm beginning to wonder what defines that. Is their premium qualification still valid or merely a residual effect of what we used to think about BMWs? Look at it this way, if BMW had only recently started making cars but churned them out in suitably high numbers to fill the roads inside a few years, would you accept its claim that its cars were a premium product? I know I wouldn't.

So I'll leave that one hanging in the air and state that, in my opinion, nearly £500 quid to service a Three Series is too high and is a good £100 more than it should be. As I said, if it's ultimately what the car needs then I'll pay it, but don't expect me to be happy about it. After all, I was paying this for M5 servicing not so long ago. Yes, that was at an independent but then it becomes clear that the cost of servicing the car has nothing to do with the complexity of the vehicle; instead it's all about the labour charge. So does this mean it costs the same to service a One Series as it does a Three, or even a Five? And does it also mean that the oft-quoted theory of revenue coming from servicing and not sales really is the truth?

When it came to paying the bill then, I initially went for my debit card,



then hesitated. Something didn't seem right about this. We'd clearly had problems with this car. The knocking on the suspension took far too long to resolve, given the fundamental cause (the cables under the bonnet had been nibbled away by so-called rodent damage shortly before delivery). There were loose clips on the boot and the on-going inability to correctly align the steering became a little irritating. In short, KP12 had seen far more of the inside of North Oxford's workshop than it should have done. I'm a philosophical sort, though, so ran with it, despite the aggravation. And the price for my easy-going nature? Nearly £500 quid to service it, the same as everybody else.

So I said no, and the Service Manager was called. I know this chap, as he dealt with the issues with KP12 shortly after we'd taken delivery and to be fair to him, he recognised this immediately. It was the most pragmatic piece of service management I've ever come across at a main dealer and in one fell swoop he instantly did away with all the small talk and made a very reasonable offer in order to settle the issue, even succeeding in wrong-footing me for a moment because (cynical I guess) I was prepared for some straight talking required to resolve this. So I took the offer and I'm pleased to say I left a happy customer, my faith in main dealer customer service thoroughly restored. I suppose you could say that it should have reduced the bill accordingly without me asking for it, but that really is a cynical view. It's a

business, not a charity and in my view, there's nothing wrong with leaving the choice to quibble up to the customer.

Anyway, that was that. KP12 is now fighting fit and is clearly the better for a good service, pulling harder in the lower gears and raising a smile along these greasy roads we're having of late (there's even been a little sprinkling of snow around my area, although not as much as I'd like).

I still haven't changed the tyres, though. There's just about enough meat on them but they really do need doing now so more on that next month. It's quite bad really but work commitments have seen me out of the country for long periods (despite the mileage!). Plus the fuel economy isn't demonstrably better, although that's probably more to do with running the heated seats on full blast every morning.

By the time you get to read this, I would have finally(!) gotten around to producing a video review of KP12, so please look out for that on my YouTube channel.

Mark Williams (@QuentlyBentin)



F30 320d Sport

YEAR: 2012

MILEAGE THIS MONTH: 2558

TOTAL MILEAGE: 36,822

MPG THIS MONTH: 46.8

COST THIS MONTH: See text

The Everett Fleet

With the £300 E36 318i Convertible on the road with tax it managed a couple of hundred miles to prove itself before I got too involved with making it better. Job one was to lower the car as the stock 318i SE type suspension is a bit high for me, plus the springs were looking a bit secondhand anyway. Via an article for the BMW Car Club I got Eibach to supply me with one of its excellent Pro-Kits that lowers the car by around 35mm and the day after it arrived, I set to it.

Fitting springs isn't rocket science but you have the age old problem of rusty and seized nuts and bolts on a car this age. Luckily, though, the 318i had been fitted with new Boge front and rear dampers not long before I had it and so everything came apart okay. Pity about the rotten top spring cups though – one of these had actually been welded in the past when they cost something like £7 or £8 each new from BMW. With the car up on stands I didn't have the luxury of waiting but in my huge collection of

spares I did have a pair of old E36 front struts that I've been meaning to throw away. Luckily the top cups on these were perfect and were fitted after a wire brush and a coat of Waxoyl. With that done, the car sat a lot lower and, as is usual with Eibach, the ride has actually improved as has the handling – well worth the £130 or so the Pro-Kit costs. As is also usual with an old Convertible, there is a small leak at the front of the hood, but cleaning the seals and rubbing in a bit of vaseline has helped tremendously. For the mileage of 209,000 it does drive remarkably well with a crisp engine and gearbox and taught suspension after I borrowed the front balljoint fitting tool from Parkside BMW in Worksop and pressed in the balljoint in situ. The oil and filter was also changed thanks to Halfords' offers on oil – eight-litres of 10/40 semi synthetic for £24 can't be bad and I bought several cans in all, enough to do the green E36 Touring as well.

The 318Ti Compact has now been



painted by Body Motor Works in Chesterfield and reassembled. There are jobs to do still before it goes back on the road in April – a good clean and a polish, getting the tyres fitted to a set of properly refurbished five-spoke wheels of the correct Compact Sport type, and fitting new bonnet catches. Having spent ages getting the bonnet to open and close like a new one, one of the catches decided to stick, meaning I had to remove the front bumper to gain access to the underside. Sytner BMW Sheffield supplied all the new bits with a mild discount. More pictures of this next month – it does look quite resplendent in Daytona violet.

Andy Everett



E36/7 Z3 four-cylinder

The Z3 is nearly 20 years old now and prices are low but we reckon it's the four-cylinder model that actually offers the true vintage sports car experience...

Words: Simon Holmes Photography: BMW



History

The Z3 was the affordable roadster with a BMW badge that everyone had been eagerly waiting for and it finally arrived in the UK in late 1996. Its super-smooth, sleek looks were attached to underpinnings from a 3 Series, although at the rear the Z3 borrowed its axle from the older E30 rather than the E36.

Compared to modern cars the Z3 may have seemed a bit basic but the standard specification for 1996 was actually pretty decent. All Z3s came with power steering, central locking, ABS and electric mirrors, seats and windows. However, the foldaway fabric roof was manually operated and covered only by a tonneau cover whilst the very earliest cars didn't actually have a radio unless the option box was ticked, although this soon changed. An electric roof and heated seats were also on the options list and worth having.

At first, there was only one engine in the line-up and that was the four-cylinder, 16-valve

1.9-litre – again shared with the E36. It was a strong unit that put out a decent 140hp and 133lb ft of torque to go with it and came connected to a five-speed gearbox, although less than year later a four-speed automatic version was added to the options list.

Six-cylinder versions soon joined the range and in late 1999 the four-cylinder model received a new engine. Confusingly, it often became listed as a 1.8, although it now featured a different 1.9-litre engine. This time it was an eight-valve that produced 118hp and 132lb ft of torque. The power decrease inevitably led to a performance decrease and the automatic gearbox was no longer available.

In 2001 a Sport version was released with larger wheels, Sports seats, a better interior and M Sport suspension, plus an LSD. However, the 1.9 engine was phased out completely in 2002, marking the end of the four-cylinder cars.

What goes wrong?

The M44 and M43 four-cylinder engines have proved to be a very reliable units over the years and the only issues seem to be minor. Vacuum leaks from corroded hoses cause lumpy running and stalling but it's just a matter of tracking it down. Otherwise a rough idle can be caused by a faulty MAF sensor or idle speed control valve, so try giving it a clean and seeing if it makes a short-term difference. A collapsed breather pipe will also cause running issues. There are also the usual BMW cooling related issues to consider but these seem common on the four-pot when put under stress. Still, check for leaks or hot running temperatures due to a failed water pump, viscous coupling, split header tank or a corroded radiator and hoses.

Elsewhere, the five-speed manual and four-speed automatic are solid and reliable transmissions, although the manual can develop a notchy gear change. Simply changing the gearbox oil can usually rectify this. If it's making a 'bonk' noise when selecting gears at low speed it's more likely to be the propshaft guibo.

Suspension-wise the rear top mounts tend to fail, causing a nasty knock and although the Z3 suffers from a rear subframe issue, it's very unlikely to affect the 1.9-litre version.

Rust seems a rare occurrence on the Z3, although broken or corroded wing mirrors and bases can be an issue. You should, however, spend most of your time checking the roof over. Make sure it operates as it should and look for obvious signs of damage that might be letting in water. The last thing you want is a wet interior. Examine the rear window. Most will have a crease but that's not a problem as long as they aren't damaged enough to let water in. They can be replaced separately from the roof, if necessary. Check the interior for signs of damp and also look in the boot. A damp carpet here indicates that the weather seal around the third brake light has corroded. Also, inside, the seat rails can wear allowing movement but these are easy to replace and the interior door handles fail, but these are easily fixed.

Running costs

Here's where the four-pot Z3 shines. It's generally a cheap and easy car to maintain if you keep on top of it and a healthy car will also reward you with few issues and decent fuel consumption, too. There's not a lot of difference between the older and newer model so expect to see over 30mpg on a regular motorway jaunt and nearer 25mpg being light footed around town. Foot to the floor driving will see less but the car can be enjoyed without hitting the redline on every gear change. Tax isn't too much, costing £126.50 for six months or £230 for a year. The later cars from 2001 cost a little more at £145 for six months and £265 for 12 months and insurance on all models should be cheap as they are now eligible for modern classic policies.



How much to pay?

It's possible to pick up a high mileage but tired Z3 in need of a little work and an MoT for less than a £1000, and if you don't mind taking on a project and getting stuck in these can be bargain buys. We found one example for £650 that needed a couple of basic and common faults attended to. From there, if you've got a keen eye, a taxed and tested example that's ready to go can be had for around the £1000 mark. Around the £2000-2500 mark will bag you a decent car with well below 100,000 miles on it and plenty of life left. Approaching the £3000 mark gives you a pick of the best usable cars. The truly immaculate, lowest mileage examples are advertised for more and we even found a 9000-mile car for £8000, though you would really have to want one for that money.



Why should you buy one?

On paper the 1.9 may have seemed a touch underpowered but, in fact, it was the four-cylinder cars that were actually better to drive in many ways. The Z3's chassis was not the most competent when pushed and the heavier and more powerful engines didn't suit the Z3 platform, at least until it was beefed-up for the M version. Instead, the four-pot Z3 is a great back-to-basics sports car that's easy to drive and easy to enjoy. Being the earliest model it's also gained a certain amount of retro appeal, just as a 1990s sports car should. Prices are just about the cheapest they are ever going to be and although it might not seem it at the minute it's quite plausible that these will soon start to go up in value.

Verdict

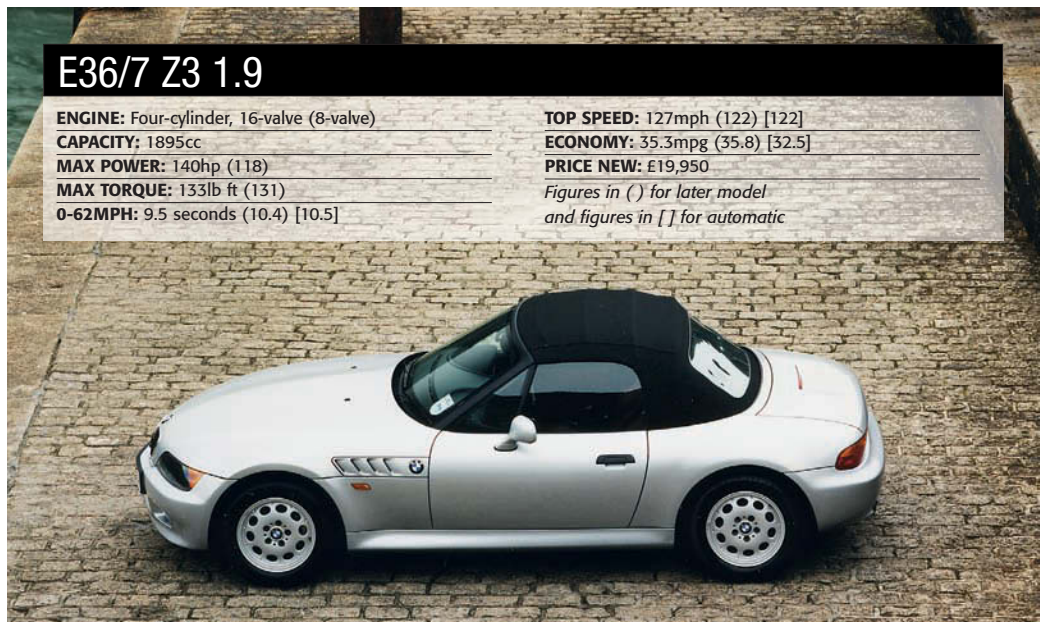
The Z3 is now at the cheap and cheerful point of its life but there have been other BMWs that enjoyed this period in their lives before suddenly becoming desirable once again. That means now is an ideal time to buy one up and have some fun and the 1.9-litre is well suited to the chassis. Be aware that it's not about speed with the four-cylinder cars but they offered a better balance than the six-cylinder machines and they are just as practical to use now as they were new, with problems being few and far between. Good examples are just as easy to come by as average ones, so pick the right car and you should be able to enjoy it for what it is whilst ticking it off the bucket list of BMWs to own before they become either too rare or too expensive to own and use properly.

E36/7 Z3 1.9

ENGINE: Four-cylinder, 16-valve (8-valve)
CAPACITY: 1895cc
MAX POWER: 140hp (118)
MAX TORQUE: 133lb ft (131)
0-62MPH: 9.5 seconds (10.4) [10.5]

TOP SPEED: 127mph (122) [122]
ECONOMY: 35.3mpg (35.8) [32.5]
PRICE NEW: £19,950

*Figures in () for later model
 and figures in [] for automatic*





Write and win with Meguiar's!

We've teamed up with those car cleaning wizards at Meguiar's to provide the winner of the best letter each month with a fabulous Meguiar's New Car Kit. This superb kit includes Ultimate Wash & Wax, Ultimate Wax, Endurance Tire gel, a Microfibre Wash Mitt, a Water Magnet and a Soft Foam Applicator pad worth £34.99!



New cars, old parts

Having just read your January edition and recently purchased a 435i Gran Coupé, I was extremely comforted by your report on this model and the fact that I had AC Schnitzer UK carry out a similar range of modifications to my car which (as you rightly say) transform it in so many ways.

And having been a BMW owner for many years, upon reaching the *Technical Tips* section I have also to agree with everything you report. When my 4 Series was delivered, my E39 530i M Sport was passed to my son and unfortunately, at 14 years old the car failed its first MoT ever – on the headlights! Apparently the internal adjusters had all broken, but rather than offer a repair or parts, BMW's answer was two new headlamps at just short of £600 each (plus fitting)! Happily, with a little effort these lights can be repaired for around £10 with replacement adjusters from eBay. Similarly, when I previously had to restore

the front brake callipers, BMW was asking just under £300 each (non-exchange) while reputable motor factors were asking around one third of that figure. It's hardly surprising that my local dealer had no recollection of ever actually selling replacement callipers to anyone.

It is a great shame that some of BMW's greatest cars cannot be maintained with original parts, as the price becomes completely prohibitive due to their policy on huge mark-ups! Thanks for a great magazine every month.

Gordon Dunsmuir

Thanks Gordon, glad you're happy with the 435i and the report! It's good to know others agree with our findings. And yes, you highlight good examples of frankly ridiculous parts costs. It's hard to comprehend why BMW would even entertain the notion of selling these parts when clearly they have priced themselves out of the market. Perhaps it's on purpose!



X5 Off-road surprise!

I arrived with my E70 X5 equipped with M&S tyres at a country shoot recently and was laughed at by a Range Rover Sport driver. I pointed out my car was fitted with normal winter tyres so should cope fine.

It was a little daunting at first but as we traded HDC hills, rutted tracks, floods, deep mud and fields the only think that held me up? The Range Rover Sport stuck in the mud in front of me! I have attached some pictures including

the offending Range Rover. So congrats BMW, having owned a Disco and Freelander before I was very impressed with xDrive performance off-road and in the snow over the last few winters.

David Allen

That's a great story about your X5 – they do get an unfair press for not being capable off-road. As you've discovered all you need is some decent rubber!



Here's looking at you

I am reading Simon's *Longtermers* journal with interest. I have an N54-powered 3 Series. I also experienced HPFP failure and have had a JB4 fitted. I can assure him he will not be disappointed. There is one other thing I would highly recommend and that is walnut blasting the intake valves. Every 60k or so it does get very coked up and following a good clean I found the car to be a lot less hesitant on cold start. Others also state that it feels a lot more lively across the rev range.

Will at TWG Automotive (www.twgautomotive.co.uk) did the work at a very reasonable price and I

could not be happier. I would recommend it to anyone with an N54 engine! A before and after picture is attached to show the difference.

Greg

Thanks Greg, glad to know others are following my progress. As you can see from my update this month I've fitted the JB4 and love it. There's plenty more to come, too! I've heard a lot about the walnut blasting and plan to have it done shortly. TWG Automotive is fairly local to me so I might well give it a call, thanks for the recommendation. Simon

Poster perfect

Hi guys,
1) Thank you for the magazine – I love it, especially the articles and info about the classics.
2) There is a thriving trade of old BMW posters and adverts. Generally, automobilia sells. BMW ones, however, are quite rare to come by and it would be nice if you guys could write an article on the matter. See below a link to one written a while back:
www.petrolicious.com/vintage-bmw-posters

In my research I have, however, come across some other very rare posters (see pictures).

Being very interested in purchasing these I would be greatly interested if, in your article, you could send out a request for anyone who has any to get in touch in order for us to start a chat about exchanging or trading these.

Simon Ellul Sullivan

Those posters are beautifully vintage. We didn't realise they were so sought after either. We are looking to do a few new articles on classics and perhaps related



memorabilia this year so this may well work. For now, we'll print your letter to kick-start any interest and help you track down any posters out there.

Vanos horrors

I just read the *Buying Guide* on the Z3 M Coupé in the January issue. One comment that caught my attention was on engines: "A few years ago it was the S54 engine that was generally regarded as the least susceptible to Vanos issues but recently it's become apparent that it actually suffers worse than the S50."

Unfortunately, I know all about the problems with the S50 engine. My M Roadster is currently having an overhaul. I have to rely on expert help since I don't have the skills, tools or manual dexterity to do the work myself. In the initial overhaul inspection at 142,418km it was recorded that there was a bad oil leak from the Vanos unit and the cam cover gaskets were leaking.

In June 2010 it went in for an inspection I with 122,511km on the clock. When it went to the garage there were no engine oil leaks. The garage was also advised to investigate a lumpy idle. Six-valve shims were quite tight which could have caused a lumpy idle and valve clearances were adjusted as part of service. It was

advised that 'two cam cover threads had been partially stripped because the cam cover had been possibly over tightened'.

A new cam cover gasket was fitted and tightened and no oil leak was detected. No further recommendation was made. Next day, after testing, lumpy idle still there. Vacuum systems checked and idle control valve replaced. Still lumpy idle; inlet camshaft sensory replaced. Still lumpy idle and a possible faulty Vanos unit was identified. It was removed and seals replaced. Inspection II and still engine not picking up properly. Vanos checked again and exhaust pushrod in Vanos broken. New Vanos fitted. No oil leaks.

Several months' later major Vanos growl and new gear shafts fitted.

The car was now running well with no Vanos noise. However, I noticed a slight oil leak from the front of engine. I initially wondered if, when fitting gears, some oil had been spilt. I therefore steam cleaned the front of the engine and the undertrays. A few weeks later I noticed oil drips again.

All the above work from June 2010 was carried out by a single garage. Fast forward to now. I received video confirmation on the leaks from a different garage that had been working on the car over the last four years. Vanos seal leaking and nine cam cover bolts were stripped, a couple completely, and sealant had been applied to enable them to be tightened. In addition, the bridge over the top of the Vanos had cracked. This was caused when the Vanos was not aligned correctly with the pump. Also the intermediate cylinder head had been cracked.

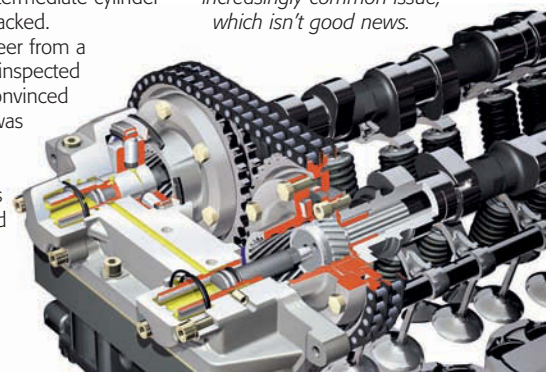
A master engineer from a BMW main agent inspected the car. He was convinced that the damage was caused by poor Vanos assembly. Replacement parts have been ordered from Germany and there will be no charge.

So S50 Vanos problems I have

experienced in plenty. I was unaware of problems with the S54 so could you please let me know where this information comes from. Great mag and thanks for your help.

Roger Till

We feel sorry for you, you've certainly had a rough time with it when it comes to the Vanos! We've heard the S54 has Vanos issues from speaking to BMW specialists, mechanics, Vanos repair specialists and owners. It's definitely a very real and increasingly common issue, which isn't good news.



Subscribe to **BMWcar** AND SAVE OVER £30*

CHOOSE THE SUBSCRIPTION THAT'S BEST FOR YOU...

PAY JUST £3.15 PER ISSUE
WHEN YOU SUBSCRIBE BY DIRECT DEBIT*

- 3 month subscription **£9.45** – SAVE **£4.05!**
- 6 month subscription **£18.90** – SAVE **£8.10!**
- 12 month subscription **£37.80** – SAVE **£16.20!**
- 24 month subscription **£75.60** – SAVE **£32.40!**

You can enjoy great *BMW Car* subscription offers wherever you are in the world!

- 12 month European subscription **Only £62**
- 24 month European subscription **Only £111.35**
- 12 month US & Canadian subscription **Only \$115**
- 12 month ROW subscription **Only £78**
- 24 month ROW subscription **Only £140.09**

New print and digital subscription bundles!

- 12 month UK subscription bundle **Only £49.99**
- 12 month European subscription bundle **Only £69.99**
- 12 month ROW subscription bundle **Only £84.99**

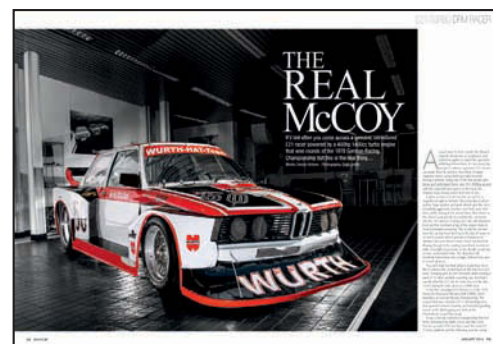
THREE EASY WAYS TO SUBSCRIBE

1. Online @ www.bmwcar magazine.com
2. Telephone 01732 748084
3. Post: *BMW Car* subscriptions, Freepost RTGU-UETS-EERS, Unity Media plc, Becket House, Vestry Road, Sevenoaks, Kent, TN14 5EJ

**PAYING BY CHEQUE
OR CREDIT CARD?**

12-month subscription
only **£43.20** – **SAVE 20%**

CALL TODAY
01732 748084



* 'Over £30' saving applies when you subscribe for 24 months paying by direct debit. Prices are for UK subscribers only

SUBSCRIBE TODAY



FREE FIRST
CLASS DELIVERY
SAVE OVER £30

WHEN YOU SUBSCRIBE BY DIRECT DEBIT *

PAY JUST **£3.15**
PER ISSUE!

SUBSCRIPTION FORM

- ☐ Yes, I would like to subscribe to *BMW Car* for 3 months for £9.45
☐ Yes, I would like to subscribe to *BMW Car* for 6 months for £18.90
☐ Yes, I would like to subscribe to *BMW Car* for 12 months for £37.80
☐ Yes, I would like to subscribe to *BMW Car* for 24 months for £75.60

YOUR DETAILS

Title _____ First name _____ Surname _____
 Address _____
 County _____ Postcode _____
 Email _____
 Contact telephone number _____ Date of birth _____

☐ Is this a gift subscription?

RECIPIENT'S DETAILS (FOR GIFT SUBSCRIBERS ONLY)

Title _____ First name _____ Surname _____
 Address _____
 County _____ Postcode _____

For other payment options and associated subscription discounts and for subscription offers for readers living outside of the United Kingdom please visit:
www.bmwcar magazine.com or call: +44 (0)1732 748084.

Your details will be processed by Unity Media Plc (publishers of *BMW Car* magazine) and our suppliers in full accordance with the UK data protection legislation. Unity Media Plc and *BMW Car* magazine may contact you with information about our other products and services. Please tick if you prefer NOT to receive such information by post, email, phone, mobile phone messaging.
☐ Unity Media Plc and *BMW Car* occasionally share data, on a secure basis, with other reputable companies who wish to contact you with information about their products and services. Please tick if you prefer NOT to receive such information by post or phone. ☐ Please tick if you DO wish to receive such information by email and mobile phone messaging. ☐ Please tick here if the recipient of this subscription is under 18. ☐ Unity Media Plc reserves the right to limit offers of this kind to one per household and withdraw the offer at any time.

PAY BY DIRECT DEBIT

Instruction to your bank or building society to pay by direct debit

Please complete and send to: BMW Car Subscriptions, Freeport RTGU-UETS-EERS, Unity Media Plc, Becket House, Vestry Road, Sevenoaks, Kent, TN14 5EJ

To the manager: Bank name _____
 Address _____
 Postcode _____

Account in the name(s) of _____

Branch sort code _____
 Bank/building society account number _____

Signature(s) _____
 Date _____

Originator's Identification Number
 8 0 9 1 4 3
 Reference

Instructions to your bank or building society
 Please pay Unity Media Plc direct debits from the account detailed in this instruction subject to safeguards assured by the Direct Debit Guarantee. I understand that this instruction may remain with Unity Media Plc and, if so, details will be passed electronically to my bank/building society.

Banks and building societies may not accept direct debit instructions for some types of account.

The Direct Debit Guarantee

This Guarantee is offered by all banks and building societies that accept instructions to pay direct debits. If there are any changes to the amount, date or frequency of your direct debit to Unity Media Plc we will notify you 10 working days in advance of your account being debited or as otherwise agreed. If you request Unity Media Plc to collect a payment, confirmation of the amount and date will be given to you at the time of the request. If an error in the payment of your direct debit by Unity Media Plc or your bank or building society, you are entitled to a full and immediate refund of the amount paid from your bank or building society. If you receive a refund you are not entitled to, you must pay it back when instructed to do so by Unity Media Plc. You can cancel a direct debit at any time by simply contacting your bank or building society. Written confirmation may be required. Please also notify us.



ACT NOW!

RETURN YOUR COMPLETED FORM TO: BMW CAR SUBSCRIPTIONS,
 FREEPOST RTGU-UETS-EERS, UNITY MEDIA PLC,
 BECKET HOUSE, VESTRY ROAD, SEVENOAKS, KENT, TN14 5EJ

BMWcar

is also available to buy in digital format,
 visit www.bmwcar magazine.com to find out more

CALL: 01732 748084
VISIT: www.bmwcar magazine.com

BMW Buyer

Our monthly look at what's hot, or not, in the BMW marketplace

Words: Guy Baker

UK new car sales hit a high in 2014 with nearly 2.5 million new cars registered – the most since 2004. And BMW is one of the chief drivers in the marketplace, seeing its 2014 UK market share increase by 9.81 per cent on its 2013 level. And this is being driven primarily by low deposit PCP deals for the retail customer, plus very competitive contract hire and leasing rates being offered to corporate buyers.

The recession caused the UK market to diversify with low-cost brands increasing their foothold. At the same time demand for premium marques also rose – squeezing some of the mid-market brands.

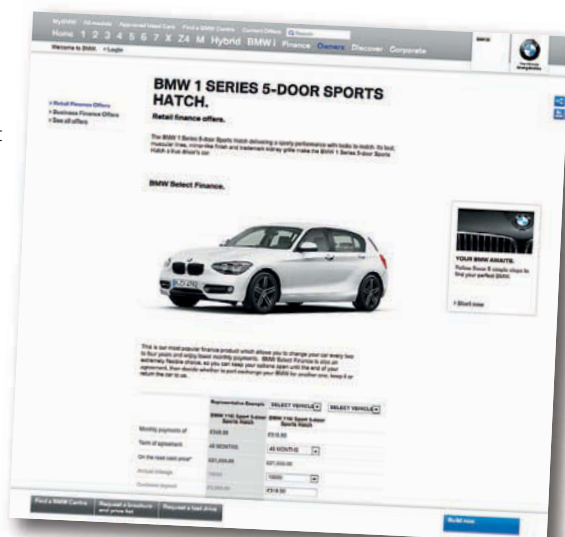
But although BMW has been very successful – a market share of nearly 7.5 per cent puts the blue and white roundel well ahead of its key rivals – there will be no room for complacency in 2015. Over the course of 2014 Mercedes UK's market share also rose by 13.7 per cent, whilst Audi's expanded by 11.93 per cent and Jaguar's by 13.5 per cent. So this year BMW buyers can expect more of the same highly-competitive new car deals.

Main dealers are already offering sizeable BMW UK and dealer deposit contributions (effectively discounts) of up to £1639 towards the finance on

116i three-door M Sport hatchbacks – yours for just £249 a month – and up to £4543 if you put down £4999 on a new 318d M Sport Saloon. The overall finance rates are pretty competitive, too, at just 6.4 per cent and 5.9 per cent APR respectively. Meanwhile online discounters like www.buyacar.co.uk and www.broadpspeed.com are offering as much as £5300 off the list price of a new 420d M Sport.

Used BMW buyers too can find some decent deals at franchised outlets but with high-spec, high-efficiency models most in demand the best deals are likely to be gleaned on less mainstream fare – like Approved Used M5 Saloons. We spotted two mint 2008 examples, with 46k and 58k miles on the clock, up for £24,870 and £22,995 respectively, and a September 2005 84k-mile Indianapolis red example with black Merino leather for just £16,136. But the biggest discounts on used BMWs are likely to be found at specialist dealers. According to Rupert Pontin, head of valuations at Glass's: "This month's best deals are on 3 Series diesel ES models, which are in plentiful supply; as well as the 1 Series

variants and most Z4 models. SE versions of the 1, 3 and 5 Series are also plentiful right now and offer a good chance of a discount." ●



THIS MONTH'S BEST BUY!



BMW 520d SE SALOON (F10) (2010 to 2012)

With face-lifted versions of the current F10 5-Series firmly established on the used market, pre-face-lift 2010 to 2012 models have fallen noticeably in value – with SE versions now offering impressive value for money. Supply is plentiful so you'll have plenty of choice, plus the opportunity to glean a serious discount. 62mph arrives in 8.1secs, yet CO₂ emissions are just 129g/km and combined economy is a staggering 57.6mpg. Prices start at just £12,000, with £13,500 enough for a mint one-owner 65k-miler.

Forecourt find

Z4 M COUPÉ

Offering epic performance plus striking looks the Z4 M Coupé is a real driver's car that offers substantial tuning potential for those who are that way inclined. But affordable examples are rare. So we were delighted to discover this immaculate, one-owner, blue example at Staffordshire-based specialist Locate A Car. Boasting a full BMW main-dealer service history with eight stamps, including the running-in service, it has covered 103k miles but looks like new. A lavish spec includes sat nav, heated electric front seats, black leather upholstery, air-conditioning, electric windows, traction control with ESP, head restraints plus a serious in-car entertainment system. And the asking price? A mere £11,995.

www.locateacaruk.co.uk

Tel: 07970 701166 or 01543 888445



BMW Car's low-down on the latest prices paid for average condition BMWs at auction. To find your nearest auction house check out: www.british-car-auctions.co.uk



And remember...

Always arrive early at car auctions, pick up the sales catalogue and examine the vehicles in the line-up before the bidding starts. In addition to the hammer price, you'll have to pay a small buyer's fee. You'll need to provide a deposit of at least £500 (in cash or by Maestro or Visa Delta debit card) but the balance of the purchase price and the buyer's fee can be paid via banker's draft, cash, cheque, telegraphic transfers, credit or debit card.

Prices paid last month for average condition BMWs at auction

| Model | Trim/transmission | Year/registration | Mileage | Price |
|----------------|------------------------------------|-------------------|---------|---------|
| 330Ci | Sport, automatic | 2003/03 | 122k | £2000 |
| Z4 2.0i | SE Roadster, manual | 2008/57 | 49k | £5750 |
| 525i | M Sport Saloon, automatic | 2008/58 | 139k | £6500 |
| 325i | M Sport Coupé, automatic | 2008/08 | 62k | £9100 |
| 330d | M Sport Saloon, manual | 2008/58 | 58k | £9900 |
| 318d | Sport Plus Edition Touring, manual | 2011/61 | 72k | £11,425 |
| Z4 2.5i | sDrive M Sport Roadster, manual | 2011/61 | 75k | £12,450 |
| 118d | M Sport Coupé, manual | 2011/61 | 31k | £12,750 |
| 320d | M Sport Convertible, manual | 2010/10 | 21k | £13,950 |
| X5 3.0d | SE, automatic | 2008/57 | 93k | £14,150 |
| 520d | M Sport Saloon, automatic | 2010/60 | 48k | £16,000 |
| 520d | M Sport Touring, automatic | 2011/61 | 55k | £16,333 |
| X1 20d | xDrive M Sport, manual | 2012/12 | 38k | £16,400 |
| X6 3.0d | xDrive, automatic | 2010/60 | 41k | £26,700 |
| 640d | SE Coupé, automatic | 2012/12 | 25k | £27,000 |

Prices quoted are hammer prices and will be subject to buyer's premium

Top three £5000 V8 saloons

There's nothing quite like smoking around in a plush, potent V8 saloon. And when you can pick up a cherished example of any of these three contenders for as little as £5000 you won't begrudge paying that little bit extra for fuel and tax.



M5 (E39) (1998-2003)

With 60mph breached in just 4.8 seconds BMW's 400hp E39 V8 manual saloon set the benchmark by which all subsequent V8 saloons were judged. And although you'll have to take your time – there are some dilapidated examples knocking around – half-decent high-mileage examples start at just £5000. Check the service history is genuine by calling the servicing dealers and scour the car for any signs of rust or accident damage. Be very careful as a worn out example will absorb cash at a frightening speed.



735i (E65) (2002 to 2003)

Not quite as extreme as the M5, the sleek and imposing 3.8-litre V8 E65 735i nevertheless marries effortless performance with a luxurious spec. Capacious and comfortable, 60mph arrives in just 7.3 seconds and the 735i's combined economy is – by V8 standards – a very respectable 26mpg. Find one that's been pampered and it should provide years of dependable luxury motoring but ensure you check *all* electrics very carefully before signing on the dotted line as repairs can be expensive.



ALPINA B10 V8 (1999-2003)

Rare and exclusive, B10 V8s cost well over £60,000 when new. But with the passage of time values have plummeted – usable examples now start at as little as £5000. With 340bhp on tap the B10 feels faster than the official 0-60mph time of 5.9 seconds suggests, and you can buy with confidence – most Alpina owners are extremely caring so any car is likely to have led a pampered life. Check for all usual E39 faults and be aware that the V8 has a reputation for blowing its head gaskets.

Many thanks to John Warren Cars (www.independentbmw.co.uk) for their assistance with BMW Buyer

JAYMIC

CLASSIC BMW PARTS

Suppliers of BMW
2002 Parts for Decades

T: 01263 768768

Catalogues on request
Online Shop
Mail order



www.jaymic.com

BMW & MINI SPECIALIST CRAGO'S

Find us on

- Scheduled Servicing & Condition Based Servicing
- Diagnosis and Electrical / Mechanical Fault Finding
- ECU Programming & Coding using Autologic Diagnostics
- Performance Chip-Tuning and Re-mapping
- Brakes, Clutches, Tyres, Exhausts & Suspension
- Air Con. system diagnosis and repairs
- All Engine and Transmission Repairs
- Convertible Roof & Sun Roof Faults
- Brake Fluid & Coolant changes
- FREE Courtesy Car or Local Collection and Delivery

Call us on **01322 294404** for servicing & repair quotes

www.cragoautorepairs.co.uk

Unit i1 Riverside Industrial Estate, Riverside Way, Dartford, Kent DA1 5BS

BMW

BMW and German Car Specialists

FULLY EQUIPPED WORKSHOP STAFFED
BY BMW MASTER TECHNICIANS
ALL MODELS SERVICED AND REPAIRED
FULL DIAGNOSTIC AND CODING CAPABILITIES
AIR CON SYSTEMS RECHARGED
ELECTRONIC WHEEL ALIGNMENT

HIGHAMS PARK MOTOR COMPANY

35-39 WINCHESTER ROAD
HIGHAMS PARK, LONDON E4 9LH
020 8523 3443

THE ONLY ALTERNATIVE TO A MAIN DEALER

FurnitureClinic

care and repair

LEATHER CARE & REPAIR SPECIALISTS

Manufacturers of a unique range of leather cleaning,
repair & restoration products.



- SCUFFS, SCRATCHES, RIPS, TEARS & BURNS
- COMPLETE RESTORATION OR COLOUR CHANGE
- CLASSIC & MODERN CARS
- DIY CLEANING, REPAIR & RESTORATION KITS AVAILABLE

Branches nationwide offering a full leather restoration service. Exact colour matches available using advanced colour technology or from one of 10,000+ colours in our colour computer database.

Head Office: Furniture Clinic, Unit 10, Hobson Industrial Estate,
Burnopfield, Newcastle Upon Tyne, NE16 6EA
tel: 0844 879 3691 fax: 01207 270 940
email: enquiries@furnitureclinic.co.uk web: www.furnitureclinic.co.uk

BM Auto Sport

Specialising in alloy wheels, we stock over 80 different types
of original equipment including genuine BM wheels, BBS,
AC Schnitzer, Alpina and aftermarket styles!!



To view our full, current stock visit our website
which is continually updated



We can offer a prompt delivery service or we can
fit them for free if you come to us



www.bmautosport.co.uk

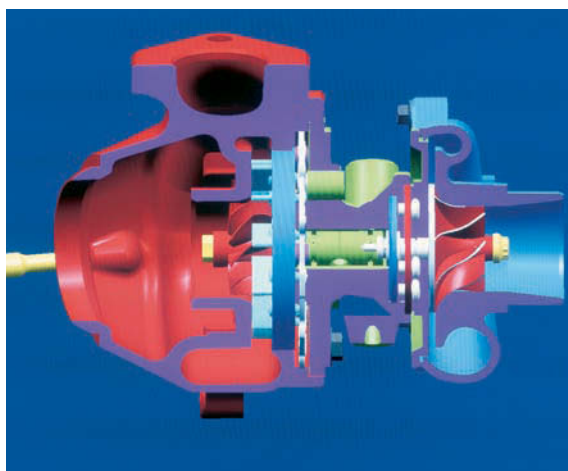
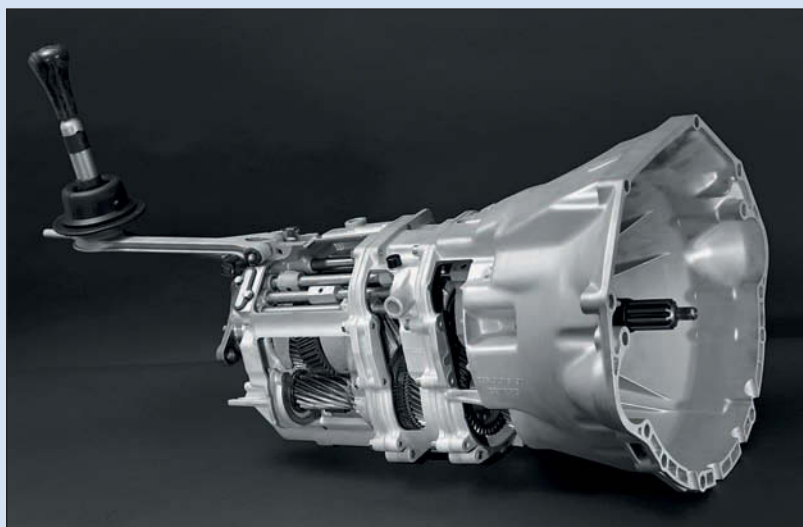
Call us on 01323 647222 or 07909 900222



Our tame BMW technical expert, Andrew Everett, has a look at some common BMW problems

Manual gearboxes

You do wonder in 2015 why anyone would want a manual gearbox on a modern BMW – particularly a 5 Series – but they still sell in big numbers, particularly on the 1 and 3 Series cars with smaller engines. By and large the gearboxes are the same basic six-speed unit and they're also pretty reliable. But we do hear the odd tale of woe and from my time selling used BMW spares I have to say I had more enquiries for late model manual boxes, mainly the ones with Efficient Dynamics and 'Stop Start'. Older manual boxes almost never go wrong and some of the older five-speed ZF and Getrag 'boxes are good for well over 300,000 miles. I recently heard of a 2010 F10 520d manual that would not go into reverse unless the engine was switched off, reverse selected and the engine fired up with the foot on the clutch. With the gearbox removed and stripped down by a transmission specialist, it was found that the reverse gear synchro ring had split and that meant it couldn't grip and synchronise the gear to the selector hub. As there are no good used manual boxes around for love nor money and BMW wasn't very bothered, the gearbox had to be repaired using some very hard-to-find parts at a total cost over £1500. Add the inevitable rattling of the dual mass flywheel and the case for owning a manual box on the basis that 'it'll never go wrong' is on its way out.



CHRA replacement

CHRA stands for Central Hub Rotating Assembly – it's the heart of your turbocharger; the centre bit with the bearings and the vanes. Let's take an E90 320d for example, the one with the variable vanes. A second-hand turbo is going to cost you around £250 to £300. A new one is going to be about £750 from Turbo Technics or a lot more from BMW. Either way, it's going to be expensive. Look on eBay though and search for 'CHRA BMW'. The more expensive ones are often made by Melett, a very highly regarded company in the UK but who doesn't supply the public – you'll need to buy from a company on eBay (often in Eastern Europe) who will sell you one. For a 320d you're looking at around 200 quid. The Chinese ones are cheaper and getting better all the time and some CHRAs for cars like an E39 530d aren't much more than £100. Fitting is easy enough and getting the turbo out is often the real cow, especially four-cylinder diesels. You can, of course, refurbish the iron casings, clean up the variable vane setup with brake cleaner and an old toothbrush and assemble the turbo on a clean bench with simple tools – some of the cheaper ones need a bit of fettling but on an E60 530d for example, it's a day's work. You will need to remove, thoroughly degrease and jet wash the intercooler as well as the oil feed pipe (don't even think of skipping these jobs) but I know guys who have used CHRAs from eBay and they've been fine. A guy I know had a 1997 E36 318tds with a seized turbo last year. An email to a UK eBay revealed that these early turbodiesel BMWs used the same CHRA as a 1.9TDi VW... just £99 for a brand-new one and he had it fitted and running like a charm by 3pm – now that's a result!

8 Series shock absorbers

For some reason, when BMW designed the 8 Series it decided to make the front struts similar to the 5 and 7 Series of the era (E34 and E32) but very slightly different so that the car would cost even more to build than it did – I'd love to talk to a few of these guys over a Peroni or two.

Whereas the 5 and 7 Series struts had replaceable front inserts where you unscrew the top collar and withdraw a complete damper unit, the 8 Series strut is different. There is still a top collar that unscrews but when you do, out pops a damper with no outer casing along with a bit of oil. That means that BMW only supply a complete strut/damper assembly for a lot of money.

Sadly, the struts are just too short to be able to slide E34 front damper inserts in to but Bilstein make an insert that is a direct replacement. It's one of the fabled yellow Bilstein versions that means it's a performance application but even so, part number PE3-B009-M1 retails at a fraction of the cost of the BMW strut unit – go to your local dealer and you're looking at an eye-watering £853 each plus VAT.

The other part number for these shocks (same parts listed for V8 and V12 cars) is 34-110096. Euro Car Parts can supply these shocks for £227 each plus VAT (so about £550 the pair all-in) but that's rather cheaper than the £2050 BMW want for standard shocks. If you have EDC struts, getting rid of the shocks (cost? You don't want to know) and converting to Bilstein B6's all-round is the only way forward.



BMW at Autosport International

The annual Autosport show at the Birmingham NEC took place on the 8-11 January and this year marked the 25th anniversary of the event. As always, there was plenty going on for industry professionals and motorsport fans alike, from trade stands as far as the eye could see to a live action arena and interviews with famous drivers. This year saw appearances on stage by David Coulthard, Jason Plato, Matt Neal, Gordon Shedden and 2014 BTCC winner Colin Turkington.

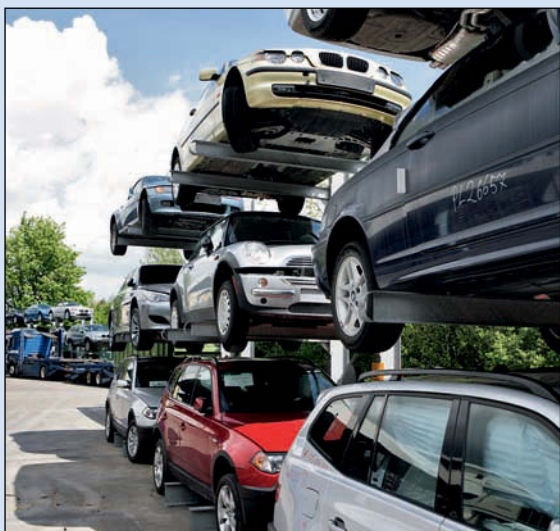
But it was Andy Priaulx who arguably stole the most thunder as it was announced at the show he would be returning to the BTCC in 2015 and driving the West Surrey Racing 125i, which was also unveiled at the show for the first time.

Interestingly, the 2014 BTCC-winning eBay motors sponsored car was also on display and elsewhere we came across a fine selection of track-ready BMWs, including an E92 drift car packing a Chevrolet V8 engine. Our January 2015 cover car was also there on the Litchfield stand and the BMW Car Club was in attendance with a fine fleet on display including an ex-BTCC E36.

Aside from the track-based cars, there were a few nice BMW-based surprises in the Coys auction area, too. A very nice 1987 E28 M5 sold for £28,750 and a very rare 1967 Alpina 1600-2, one of only four remaining, sold just above its estimate for £23,000. The star BMW up for grabs was undoubtedly the stunning 1974 ex-works 2002 competition rally car. It won the 1975 Donegal International Rally and was notably driven by Björn Waldegård and Ari Vatanen. Recently restored it had an estimate of £160,000-180,000 but failed to sell.

We look forward to another BMW packed Autosport show next year.





Salvage hunters

Back in the good old days, a decent living could be earned by buying a damaged car from the salvage brokers such as Universal Salvage, fixing it and selling it on. I personally found that it was too much aggro but I had a few cars that I bought with apparently serious but quite easily fixable damage, did a decent repair and ran them myself because they were a lot cheaper than buying a straight one. A look at any online salvage auction now though will dispel any thoughts of doing that unless you are very lucky. I'm registered with a well-known auction company and every week have a scout around to see what's what with an eye on getting something that's worth fixing. The one that caught my eye before Christmas was a 2007 730d face-lift, an SE in black that didn't run. No body damage but it was sold with mechanical damage as a non-runner and that was most likely a car that went through water deeper than was good for it. With these cars, you need to assume the service book is missing along with the spare wheel, that the floor has forklift marks and it will be filthy dirty. That's before you consider the worst case scenario and that the engine cannot be rebuilt. Well, a 100,000 mile 730d is worth about £7500 so I'd love to know who thought over £4500 was realistic.

Another prize candidate was a 2004 E60 520i Auto, thankfully with 17-inch wheels and leather. Maybe a bit old and low spec to get too excited but it had around 100,000 miles and, on the face of it needed a repair to two doors plus painting. A Category D marker meant the V5 logbook wasn't scarred for life but it would always have 'form'. Plus, the coolant level light was glowing and you're still buying a car without any kind of test drive. Given that it's worth a shade over £3000 fixed, I was amazed to see that with two days to go, it had already made £2000 before actual 'on the day' bidding started. Absolute madness – who is paying these prices?

Think twice about that M6!

There's virtually nothing finer than piloting an E63 M6 at full chat. Its V10 engine utilising all of its 507 horses as it chases down the redline must be one of motoring's finest moments and when you're really on it the SMG 'box that can be oh-so frustrating around town with its potentially ponderous and clunky changes really comes into its own, swapping cogs majestically. And with prices now dipping below the £15k mark for higher mileage examples they're starting to look like a very tempting prospect.

A word of caution though; they can potentially be hugely expensive to run. This shouldn't really come as a huge surprise as it was, after all, an £80k car when it was new, but some of the bills these machines can throw up will be eye-watering. We were recently down at BM Sport (020 8304 9797/bmsport.com) picking up the editorial M635CSi and the conversation eventually turned to the E63 incarnation of which there were two in the car park. "Brilliant when they're working," commented Jags, "but a nightmare when anything goes wrong. There's the M tax to pay on the parts and as the vast majority of repairs are pretty labour-intensive it costs a fortune to repair them."

A case in point was a car the company recently had in for a set of front shock absorbers. Electronic Damper Control was, of course, standard on these machines and once you factored in the price of the parts (with the M tax of course), labour and VAT the replacement cost was £2000. And this wasn't a desperately high mileage machine either, the shocks were simply leaking. Being such a high-tech machine there's plenty to go wrong – clutches are a known problem area and you need to fit a new flywheel at the same time, Vanos issues are quite frequent, often necessitating a new pump and Vanos oil lines, diffs can start to rumble and sticky injectors can lead to bore wash. Perhaps most worrying is the engine's reputation for knocking out its big end bearings. And even the spark plugs are a



pig to change, especially as the coils frequently get stuck, too.

So, if you are considering a purchase we reckon your first port of call should be a BMW main dealer, and see if you can negotiate a two-year extended warranty into the deal! However, even main dealers aren't keen to stock these machines anymore and they're few and far between. So if you can't find one at a main dealer we reckon you should buy privately or from a specialist, but have the car thoroughly looked at prior to purchase and get any problems fixed before taking delivery. We'd then advise taking out the BMW Warranty – if the car's mileage at the start of the policy is below 60k it shouldn't be too ruinously expensive and will almost certainly be money well spent in the long run.

New Classic Auctions

If you have ever fancied dipping your toe in the classic car auction world but are a little put off by some of the rarified machinery you'd need to get past before finding something in your price category then you might be interested in a new venture from Silverstone Auctions, Classic Car Auctions (CCA).

CCA is a specialist auction house that has been set up for the sale of 'everyman' classic cars. It has been created by the highly respected team from Silverstone Auctions and will hold regular sales every other month at Silverstone race circuit, the home of British motorsport. CCA will offer enthusiasts the opportunity to buy an impressive selection of iconic classic cars.

CCA reckons it will make buying and selling a classic car as easy and as straight-forward as possible and that its dedicated team of knowledgeable classic car specialists will be able to provide sellers with honest and realistic estimates, combined with extensive marketing and well-presented sale days which will help cars achieve a great price while at the same time offering buyers a fantastic selection of affordable classic cars presented with extensive information and detailed condition reports along with low buyer's fees. To find out more have a look at www.classiccarauctions.co.uk.

Next Month

The story behind this unique M1



Plus

Glorious restored 2002 • E92 M3 brake test
• 1 Series endurance racers • Alpina RLE

April 2015 issue in the shops 19 March
and available to download 16 March

(Contents subject to change)

BMW CONCEPTS: The cars they could have made

GINA

They don't come any more futuristic than this: a car covered with a flexible skin that could change shape when required...

Usually a concept car tends to be a simple styling exercise, a flexing of muscles from the design department to show what it's capable of. It might explore a new niche but it rarely goes further than simple aesthetics. That's what sets the 'Geometry and functions In 'N' Adaptations' (or less pretentious GINA for short) apart from just about any other concept car to emerge from the BMW stable as it's a far more complex and clever creation.

Looks-wise it might appear to be a regular kind of concept, featuring an interesting set of swage lines, muscular looks and an aggressive stance. It even looked a bit like a Z4 from some angles.

However, this was no simple display of sporty styling as the GINA had a rather large trick up its sleeve. The smooth and seamless bodywork was covered by a flexible material that effectively gave the GINA a stretchy skin. The polyurethane coated Spandex fabric was heat resistant, waterproof and agile enough to flex without damaging. This meant the

doors would open by creasing the fabric skin around the hinge, which would return to its original shape afterwards. However, the skin's abilities stretched much further than that, quite literally. The material enabled wondrous things as it was stretched over four body panels underneath, made up of the bonnet, doors and boot area.

These featured clever movable frames constructed from aluminium and carbon fibre that were controlled by a series of electro-hydraulics. It allowed them to change shape without disrupting the seamless look of the skin on top of it, almost like a living organism. For instance, the bonnet actually separated in the middle to reveal the engine beneath it and the headlight apertures emerged from nowhere like a blinking eye to reveal the lights themselves. The tail-lights weren't distinguishable at all until they were lit as they simply shone through the material and a boot spoiler grew seamlessly from beneath the skin at speed before disappearing again.

The minimalist exterior ensured the car looked

incredibly sleek and futuristic. There was no roof and the windscreen frame that divided in the middle had a retro feel that extended into the cockpit. Here the transforming theme also continued as the headrests and steering wheel both moved out of the way to allow easy access for the occupants. Once seated the controls were offered up and the seats moulded around you.

Underneath the bold interior and exterior the platform and all of the essential running gear was actually borrowed from a Z8, which meant there was V8 petrol power. The minimalist theme and lightweight panels and framework ensured it would be a good drive, too.

There's no denying the thinking behind the GINA is brilliant. The ability to actively change the shape of panels brings endless possibilities and benefits and it's something that seems feasible in a production car, albeit on a smaller scale perhaps as the prospect of having to repair a front panel due to tiny tear would be a scary prospect at BMW dealer prices ●





YOU WON'T SPOT OUR WORK EVEN IF YOU GET AS CLOSE AS THE VAN DID.

**YOU CAN DENY ALL KNOWLEDGE OF A SCUFF OR ANY OTHER DAMAGE
TO YOUR BMW, BY VISITING A BMW APPROVED BODYSHOP.**

We've all had them: those heart-sinking moments when you feel the mirror making contact. Thankfully you can deny all knowledge of any damage with a visit to your BMW Approved Bodyshop. Using innovative BMW repair techniques, they will return your car to its original condition and your conscience will be clear again.

**To find your local BMW Approved Bodyshop for a quote or more information,
visit www.bmw.co.uk/bodyshop or call 08000 834 395**

**BMW Approved
Bodyshop**

BMW Service

**A WARM WELCOME.
BMW TRAINED TECHNICIANS.
FIRST CLASS HOSPITALITY.
GENUINE BMW PARTS.
YOU NAME IT.**



**WE NAMED IT.
BMW VALUE SERVICE.**

£179

**OIL AND MICROFILTER SERVICE.
FOR SELECTED BMW 3 SERIES MODELS*,
FOUR YEARS AND OLDER.**

The benefits of having your BMW 3 Series serviced by a BMW Retailer are considerably more than you might think.

You'll receive a great welcome, and coffee to match. You'll enjoy our free wi-fi while you wait, or we'll help you with onward transport. We'll also give your car a complimentary wash and vac.

You'll also benefit from BMW Trained Technicians, Genuine BMW Parts – warranted for two years – and, above all, a really competitive price.

**For more information, simply enter your vehicle registration
at www.bmw-service.co.uk**

*Price includes VAT, parts and labour. Excludes all M Power vehicles. Price shown is valid for 4 Cylinder BMW 3 Series E90 Saloon, E91 Touring, E92 Coupé and E93 Convertible models over 4 years old from date of first registration. Participating Retailers only. Offer is subject to availability and may be withdrawn at any time.